ORIGINAL

1

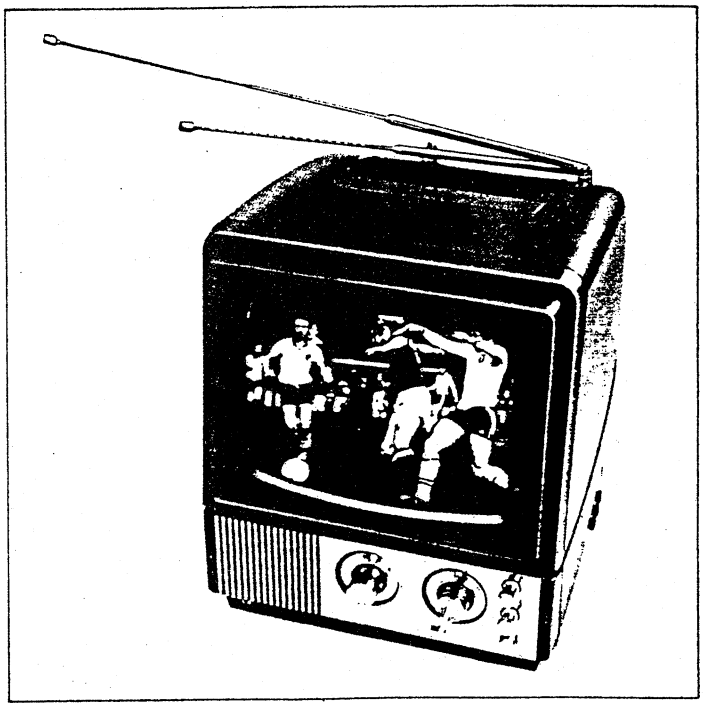
SCHALTPLAN

Original

OTAKE
COLOR
9000

UHF/VHF
PORTABLE

FARBFERNSEHER



2-WEGE STROMVERSORGUNG
NETZ/12V AUTOBATTERIE

K3/019'80
070180

1

TEL. ANT.

UHF TUNER PACK
TNS - 1984

VHF TUNER PACK
TNS - 1983

PCB 5 OP-818

PCB 2 OP-759

PCB 3 OP-758

PCB 4 OP-797

PCB 1 OP-760A

IC604 TDA1035S HA1130

IC601 AN5111

IC602 M51381P

IC603 M5194P

IC701 HA11235

Q501 2SB707

Q502 2SC1213

Q503 2SA1029

Q601 2SC388A

Q602 2SC1573

Q603 2SC1573

Q604 2SC1573

Q701,702,703 2SC1848

Q704 2SD917

T601 160165

T602 160195

T603 160175

T604 160175

T701 1418 MS

T702 FB-119 FLYBACK TRANS.

T501 RB20630K POWER TRANS.

J501 AC/DC SOCKET

J601 EAR. J.

J602 CRT SOCKET

SP1 16Ω SPEAKER

V1 250AGB22 PICTURE TUBE

SW601-1 AFC ON/OFF

SW601-2 AUTO/MANU

SW602 SERVICE SW.

SW701 ERASE

L707 DEGAUSS COIL RB-20614

L704 DY-114 DEFLECTION YOKE

CF601 SFF 5.5MB

CF602 38M MA

CF603 EFCS5R5GW3

CF604 3.58MHz B. PASS

LC973A

VR601 10K SOUND VOLUME

VR602 5K RF AGC

VR603 5K H HOLD

VR604 10K V HOLD

VR605 10K CONTRAST

VR606 10K BRIGHTNESS

VR607 10K SUB BRI.

VR608 10K SUB CONT.

VR609 10K COLOR

VR610 10K VIDEO TONE

VR611 10K CONTRAST CONTROL

VR612 30K COLOR

VR613 30K BRIGHTNESS CONTROL

VR614 10K BLANKING PEAK LIMITER

VR615 10K BUFFER AMP

VR616 10K PEDESTAL CLAMP

VR617 2M SCREEN

VR618 5K V HOLD

VR619 10K V SIZE

VR620 10K VIDEO DRIVE

VR621 30K CONTRAST

P1 P2 P3 P4 P5 P6 P7

J1 J2 J3 J4 J5

TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15

D501~504 30D1
C502~505 0.02

F501 6.5A(T)

AC 220V

DC 13.5V

POWER SWITCH (PULL ON)

1 1.5Vp-p (H)
2 1.7Vp-p (H)
3 2.3Vp-p (H)
4 4.5Vp-p (H)
5 1.0Vp-p (H)
6 3Vp-p (H)
7 3Vp-p (H)
8 150mVp-p (H)
9 2.5Vp-p (V)
10 3.5Vp-p (V)
11 35Vp-p (H)
12 9Vp-p (H)
13 22Vp-p (V)
14 190Vp-p (H)

(120V)
(240V)
(15KV)

CAUTION:
SINCE THESES COMPONENTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

NOTE:
VOLTAGES AND WAVE FORMS ARE TAKEN WITH STANDARD COLOR BAR SIGNAL APPLIED TO THE SET. (AC 120 VOLT, B+ ADJUSTED FOR 11.7VOLT)

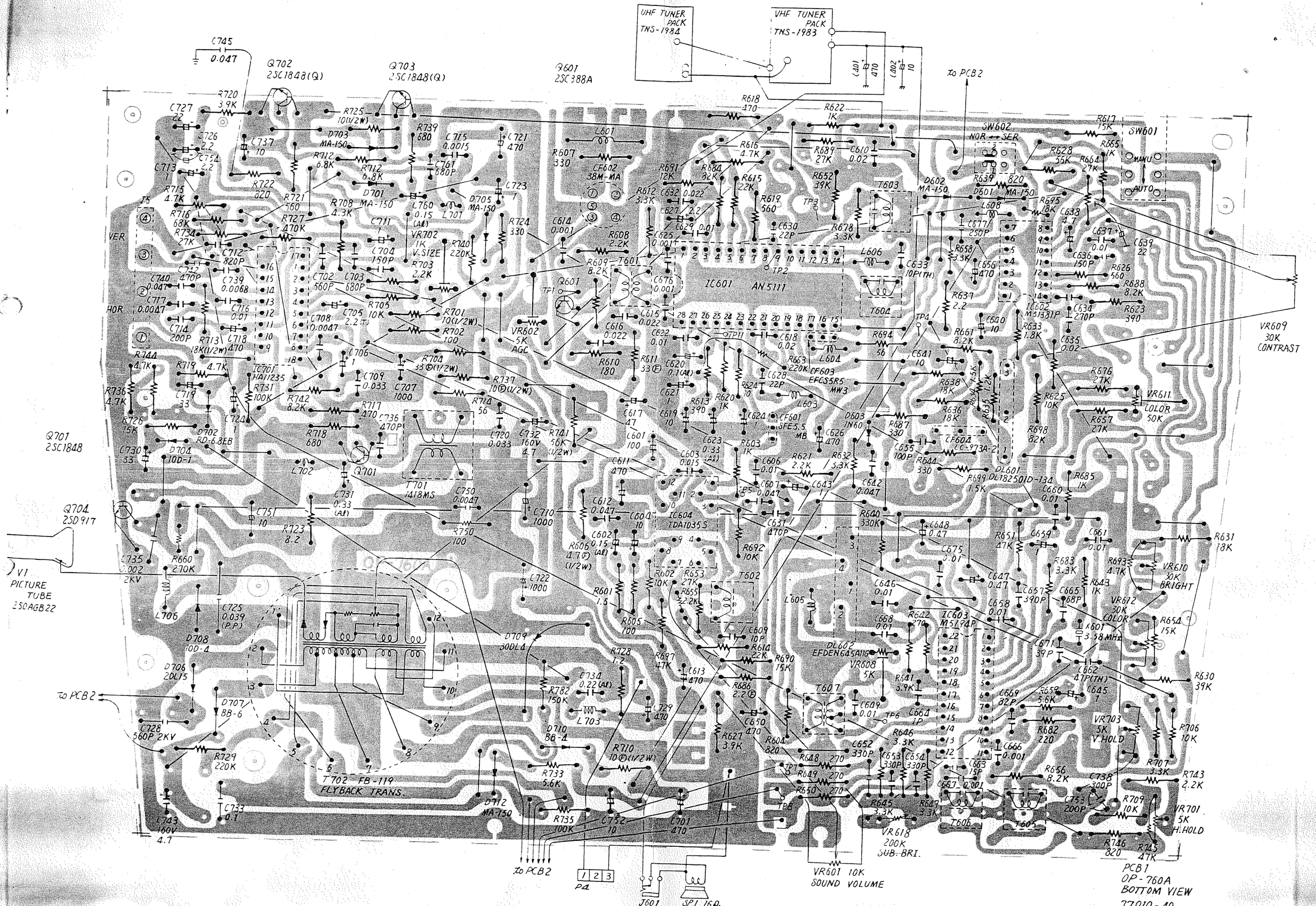
77010-40
1-937

TEL. ANT.
UHF TUNER PACK TN3-1984
VHF TUNER PACK TN3-1983
PCB5 0P-818
PCB3 0P-758
PCB4 0P-797
PCB2 0P-759
PCB1 0P-760A
IC604 TDA1035S HA1130
IC601 AN5111
IC602 MSI381P
IC603 MSI94P
IC701 HA11235
Q501 2SB707
Q502 2SC1213
Q503 2SA1029
Q601 2SC388A
Q702 2SC1848
Q703 2SC1848
Q704 2SD917
T501 RB20630K POWER TRANS.
T702 FB-119 FLYBACK TRANS.
L704 DY-114 DEFLECTION YOKE
V1 250AGB22 PICTURE TUBE
J501 AC/DC SOCKET
J601 EAR J.
SP1 16Ω SPEAKER
SW601-1 AFC
SW601-2 AUTO/MANU
SW602 SERVICE SW
SW701 ERASE
L707 DEGAUSS COIL RB-20614
POWER SWITCH (PULL ON)
REGULATED POWER SUPPLY
AF POWER AMP
DC VOLUME CONTROL
IF AMP LIMITER
LOW PASS FILTER
FM DET
VIDEO I/ONE
BRIGHTNESS CONTROL
CONTRAST CONTROL
BLANKING PEAK LIMITER
BUFFER AMP
PEDESTAL CLAMP
VIDEO DRIVE
VIDEO INV.
VIDEO AMP
VIDEO DET
AGC DET
IF AGC
BLOCKING PROTECTOR
SOUND DET.
V IF AMP
RF AGC
AFC
3.58MHz B PASS
1H DL
S&H
KILLER
IDENT AMP
B-Y DEM
R-Y DEM
MATRIX
1st AMP
2nd AMP
ACC AMP
ACC DET
HIZ DET
APC DET
LIMITER
LINEAR AMP
PAL SW
COLOR CONT CHROMA G
GATE AMP
APC S&H
DC CONT R.SHIFTER
F.F.
CW OUT
VERTICAL AMP DRIVE
VERT OSC.
VERT TRIG
SYNCHRONOUS SEPARATOR
AFC
H OSC
H AMP
J602 CRT SOCKET
J603 AC/DC SOCKET
(120V)
(240V)
(115KV)
AC 220V
DC 13.5V
P1 P2 P3 P4 P5 P6 P7
TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15
1.5Vp-p (H)
1.7Vp-p (H)
2.3Vp-p (H)
4.5Vp-p (H)
1.0Vp-p (H)
3Vp-p (H)
3Vp-p (H)
150mVp-p (H)
2.5 Vp-p (V)
3.5Vp-p (V)
3.5Vp-p (H)
9Vp-p (H)
22Vp-p (V)
190Vp-p (H)

(CAUTION:
SINCE THESES COMPONENTS MARKED BY
ARE CRITICAL FOR SAFETY,
USE ONES DESCRIBED ON PARTS LIST ONLY.

NOTE:
VOLTASES AND WAVE FORMS ARE TAKEN WITH
STANDARD COLOR BAR SIGNAL APPLIED TO THE SET.
(AC 120 VOLT, B+ ADJUSTED FOR 11.7VOLT)

77010-40
1-937


UHF TUNER PACK TNS-1984
VHF TUNER PACK TNS-1983
C401 470
C402 10
to PCB2
Q702 2SC1848(Q)
Q703 2SC1848(Q)
Q601 2SC388A
C745 0.047
R720 3.9K
C727 22
C726 2.2
C754 2.2
C713 1
R715 4.7K
R716 68K
R734 27K
C712 820P
C742 470P
C740 0.047
C739 0.0068
C717 0.0047
C714 200P
R713 18K(1/2W)
C716 0.01
C718 470
R744 4.7K
R719 4.7K
R736 4.7K
C719 33
R726 15K
C730 33
D704 10D-1
C724 1
R731 100K
IC701 HA11235
C706 1
C705 2.2(T)
C708 0.0047
C702 560P
C703 680P
C704 150P
C711 1
R705 10K
R703 2.2K
R708 4.3K
R727 470K
R721 560
R722 820
C737 10
R725 10(1/2W)
D703 MA-150
R712 6.8K
R739 680
C715 0.0015
C761 680P
C721 470
C723 1
D701
L760 0.15 (A1)
L701
D705 MA-150
R724 330
VR702 1K V.SIZE
R740 220K
R701 10(1/2W)
R702 100
R704 33Ω(1/2W)
R737 10Ω(1/2W)
R714 56
C709 0.033
C707 1000
R717 470
R718 680
C736 470P
L702
Q701
T701 418MS
C720 0.033
C732 160V 4.7
R741 56K (1/2W)
C731 0.33 (A1)
C750 0.0047
R750 100
C710 1000
C722 1000
L601
R607 330
CF602 38M-MA
C614 0.001
R608 2.2K
R609 8.2K
Q601
TP1
VR602 5K AGC
C616 0.022
R610 180
C615 0.022
R611 33Ω
C617 47
C601 100
C611 470
C612 0.047
C604 10
C602 0.15 (A1)
R606 4.7Ω (1/2W)
R601 1.5
R605 100
R602 10K
R653 27K
R655 22K
T602
L605
C609 10P
R614 22K
R690 15K
R686 2.2Ω
C650 470
R627 3.9K
R604 820
C652 330P
R648 270
R649 270
R650 270
TP8
C653 330P
C654 330P
R645 3.3K
R647 3.3K
VR618 200K SUB-BRI.
VR601 10K SOUND VOLUME
T606
T605
C655 100P
R644 330
R699 1.5K
DL601 DL182501D-134
C660 0.01
R685 1K
R640 330K
C648 0.47
C675 0.01
C647 0.47
C646 0.01
C668 0.01
R642 270
C658 0.01
C657 390P
C665 68P
R643 1K
R683 3.3K
R693 4.7K
VR610 30K BRIGHT
VR612 30K COLOR
R654 15K
R631 18K
R630 39K
C671 39P
C662 47P(TH)
C645 1
R652 5.6K
R682 220
C669 82P
C666 0.001
C663 15P
C667 0.001
VR703 5K V.HOLD
R706 10K
R707 3.3K
R743 2.2K
C738 300P
C753 200P
R709 10K
VR701 5K H.HOLD
R746 820
R745 47K
PCB1
OP-760A
BOTTOM VIEW
77010-40
2-1230
R618 470
R622 1K
R689 27K
C610 0.02
R691 12K
R684 82K
R615 22K
R619 560
R612 3.3K
C632 0.022
C627 2.2
C625 0.001
C629 0.01
C630 22P
R678 3.3K
T603
D602 MA-150
D601 MA-150
SW602 NOR→SER
SW601 MANU AUTO
R617 15K
R628 56K
R664 27K
R665 1K
R639 820
L608
R695 18K
C638 4.7
C637 0.01
C639 22
C636 150P
R626 560
R688 8.2K
R623 390
C634 270P
C635 0.02
R633 1.8K
R676 27K
R625 10K
VR611 COLOR 50K
R657 27K
R698 82K
R658 3.3K
C656 470
R639 2.2
C640 10
R661 8.2K
R694 56
C641 10
R638 18K
R636 18K
R635 1.2K
R634 1.5K
C633 10P(TH)
L606
T604
L604
CF603 EFCS5R5 MW3
L603
CF604 CC-973A-2
DL602 EFDEN645A11G
VR608 5K
R541 3.9K
C649 0.01
TP6
C664 1P
T607
IC603 M51374P
IC602 M51331P
TP4
TP3
TP2
IC601 AN5111
OTP1
C622 0.01
C618 0.02
R663 220K
C628 22P
C620 0.1 (A1)
C621 1
R624 10
C624 1
CF601 SFE5.5 MB
C619 10
R613 390
R620 1K
C623 0.33 (A1)
R603 1K
C626 470
C603 0.015
C606 0.01
C607 0.047
C643 C642 0.047
R621 2.2K
R632 3.3K
C631 470P
R692 10K
C643
TP5
R687 330
R603 1.5K
R635 1.2K
R634 1.5K
R622 1K
R689 27K
C610 0.02
R691 12K
R684 82K
R615 22K
R619 560
R612 3.3K
C632 0.022
C627 2.2
C625 0.001
C629 0.01
C630 22P
R678 3.3K
T603
D602 MA-150
D601 MA-150
SW602 NOR→SER
SW601 MANU AUTO
R617 15K
R628 56K
R664 27K
R665 1K
R639 820
L608
R695 18K
C638 4.7
C637 0.01
C639 22
C636 150P
R626 560
R688 8.2K
R623 390
C634 270P
C635 0.02
R633 1.8K
R676 27K
R625 10K
VR611 COLOR 50K
R657 27K
R698 82K
R658 3.3K
C656 470
R639 2.2
C640 10
R661 8.2K
R694 56
C641 10
R638 18K
R636 18K
R635 1.2K
R634 1.5K
C633 10P(TH)
L606
T604
L604
CF603 EFCS5R5 MW3
L603
CF604 CC-973A-2
DL602 EFDEN645A11G
VR608 5K
R541 3.9K
C649 0.01
TP6
C664 1P
T607
IC603 M51374P
IC602 M51331P
TP4
TP3
TP2
IC601 AN5111
OTP1
C622 0.01
C618 0.02
R663 220K
C628 22P
C620 0.1 (A1)
C621 1
R624 10
C624 1
CF601 SFE5.5 MB
C619 10
R613 390
R620 1K
C623 0.33 (A1)
R603 1K
C626 470
C603 0.015
C606 0.01
C607 0.047
C643 C642 0.047
R621 2.2K
R632 3.3K
C631 470P
R692 10K
C643
TP5
R687 330
R603 1.5K
R635 1.2K
R634 1.5K
VR609 30K CONTRAST
Q704 2SD917
V1 PICTURE TUBE 250AGB22
C735 0.002 2KV
R660 270K
L706
C725 0.039 (P.P)
D708 100-4
D706 2DL15
D707 BB-6
C728 560P 2KV
R729 220K
C733 0.1
C743 160V 4.7
T702 FB-119 FLYBACK TRANS.
D709 30DL4
R728 1.2
C734 0.22 (A1)
R782 150K
L703
D710 BB-4
R710 10Ω(1/2W)
R733 5.6K
R735 100K
C752 10
D712 MA-150
C701 470
J601 EAR
P4
1 2 3
SP1 16Ω SPEAKER
Q701 2SC1848
Q704 2SD917
VER
HOR
J5

PCB1
OP-760A
TOP VIEW
T1010 A0
2 1229

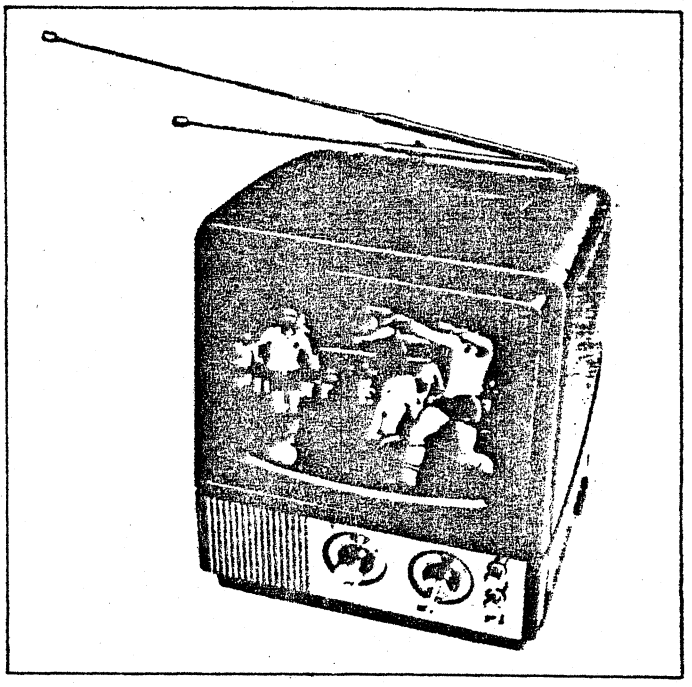
SERVICE MANUAL

EINGEGANGEN
28. APR. 1982

OTAKE
COLOR
9000

UHF/VHF
PORTABLE

FARBFERNSEHER



2-WEGE STROMVERSORGUNG
NETZ/12V AUTOBATTERIE

+B CONSTANT VOLTAGE ADJUSTMENT

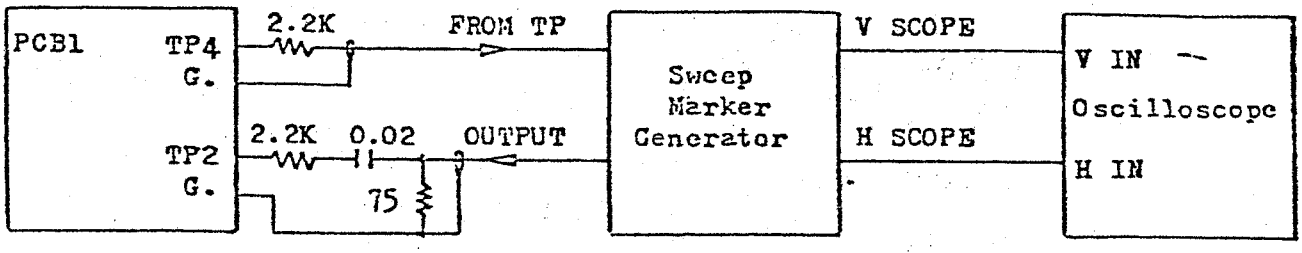
1) Adjust +B Regular Voltage with VR501 (1K) so that the collector voltage (+B) of Q501 (2SB553) may become to 11.7V (at AC 220V / DC12V).

1 VIDEO IF ADJUSTMENT

1) Needed Equipment

a) TV-VIF Sweep-Marker Generator
b) Oscilloscope

2) Connection



3) Alignment

Step	Set Signal to	Adjust	Adjust for
1	Connect the AGC resistor (12K) between TP11 and ground.		
2	P (38.9 MHz)	T603 (16017)	See Fig. A
3	Connect Sweep-Marker Generator output cable to TP10.		
4	The whole wave shape	T601 (16016)	See Fig. B
5	P & P-4.43	IFT on VHF Tuner Pack	
6	Remove the AGC resistor (12K) between TP11 and ground.		

Fig. A

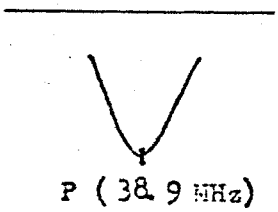
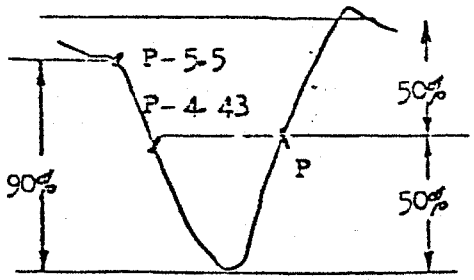
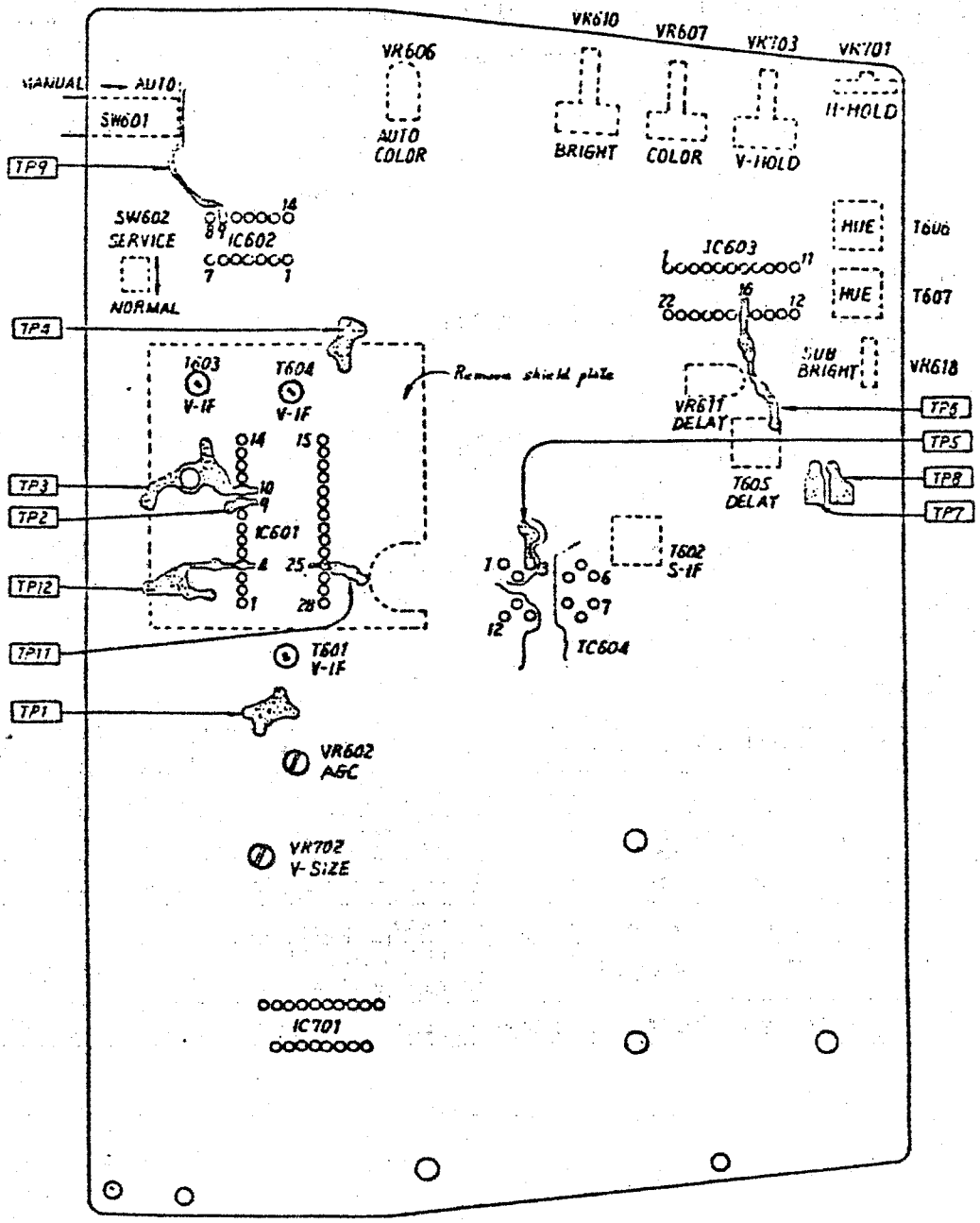


Fig. B

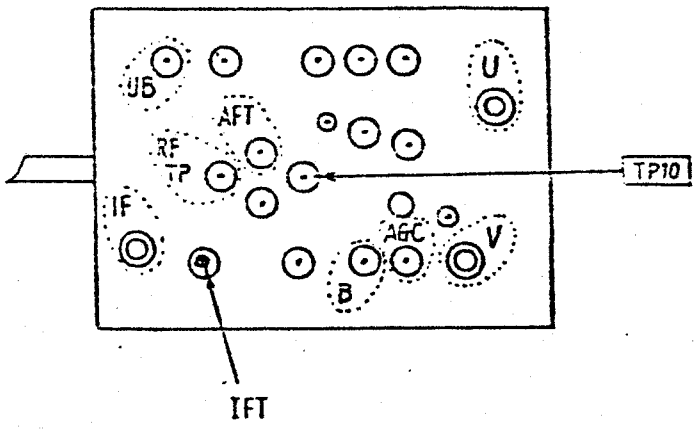


band..3.2 - 3.8MHz

TEST POINTS LOCATION GUIDE



VHF TUNER PACK

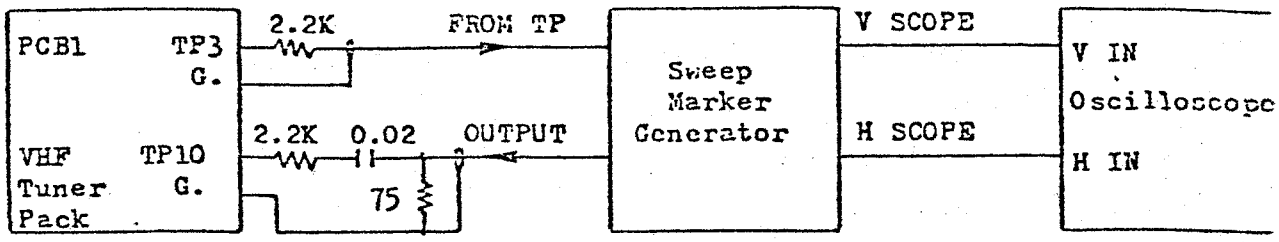


2 AFC ADJUSTMENT

1) Needed Equipment

a) TV-VIF Sweep-Marker Generator
b) Oscilloscope

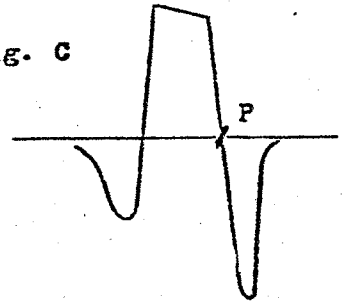
2) Connection



3) Alingment

Step	Set Signal to	Adjust	Adjust for
1	Connect the AGC resistor (12K) between TP11 and ground.		
2	SW601 (AUTO SW) ON.		
3	P (38.9 MHz)	T604 (16018)	See Fig. C
4	Remove the AGC resistor (12K) between TP11 and ground.		

Fig. C

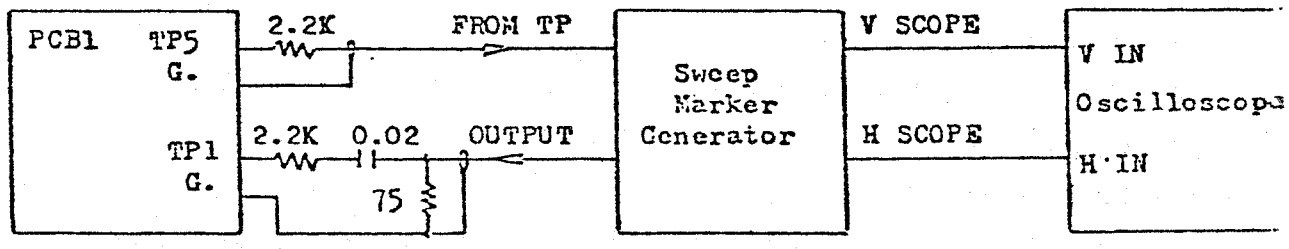


3 SOUND IF ADJUSTMENT

1) Needed Equipment

a) TV-SIF Sweep-Marker Generator
b) Oscilloscope

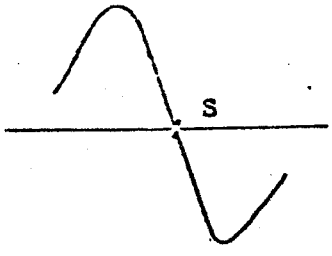
2) Connection



3) Alignment

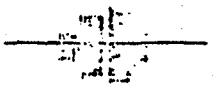
Step	Set Signal to	Adjust	Adjust for
1	Connect the AGC resistor (12K) between TP11 and ground.		
2	Set VR601 (volume) to minimum.		
3	S (5.5MHz)	T602 (16019)	See Fig. D
4	Remove the AGC resistor (12K) between TP11 and ground.		

Fig. D



[6] AUTO COLOR INPUT LEVEL ADJUSTMENT

1) Receive the signal of color bar.
2) Connect the oscilloscope to TP6
   SW601 (AUTO SW) ON.
3) Adjust to 220mVp-p with VR606 (5K).



220mVp-p (H)

[7] HUE/DELAY ADJUSTMENT

1) Receive the signal of color bar.
2) SW601 (AUTO SW) ON.
3) Adjust to original color with T606,T607 (HUE) & VR611,T605 (DELAY).

[8] SUB BRIGHT ADJUSTMENT

1) Receive the signal of color bar.
2) Connect the tester to TP9.
   SW601 (AUTO SW) ON.
   VR610 (BRIGHT) maximum.
3) Adjust to 7.2~7.5V with VR618 (200K).

[9] VERTICAL SIZE ADJUSTMENT

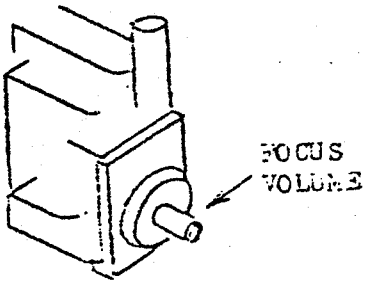
1) Receive normal picture signal.
2) Adjust the picture on TV screen with VR702 (1k) so that the picture may become equally.

[10] RF AGC ADJUSTMENT

1) Receive normal picture signal.
2) Adjust the noise in the picture just disappears with VR602 (5K).

[11] FOCUS ADJUSTMENT

1) Receive normal picture signal.
2) Set the picture with FOCUS VOLUME so that it may become distinctly.



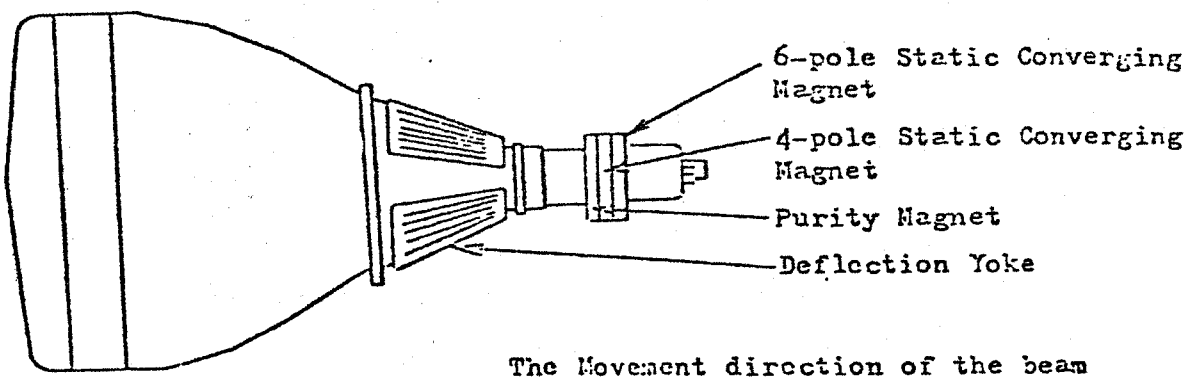
T702 FLYBACK TRANS.

12 WHITE BALANCE ADJUSTMENT

Start the adjust after ten minutes at least in turning on the Power Switch

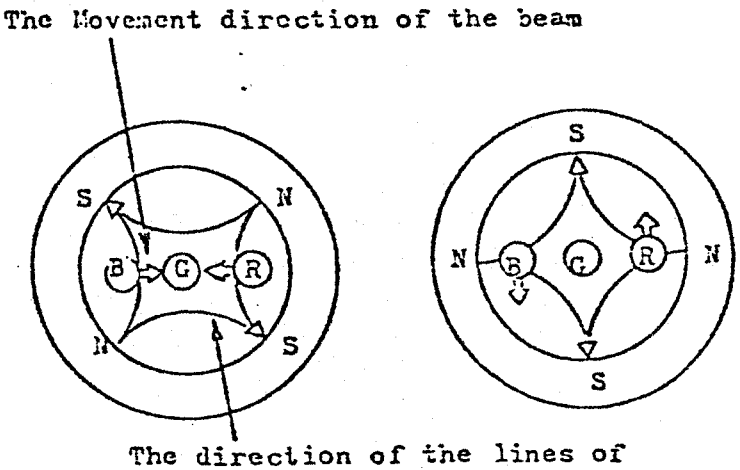
1) Receive the rainbow of color bar generator.
2) Set the remote switch of color bar generator to on and change the TV screen to raster. (SW601 ON)
3) Change the service switch (SW602) to ON.
4) Set the VR612, VR614 and VR616 to minimum.
5) Turn the screen volume (VR617) clockwise gradually and fix the screen volume on the position that one of Red, Green and Blue color appears on the screen dimly.
6) Turn the disappeared low right volume of Red and Blue colors counterclockwise, and adjust the low right volume so that the three colors may dimly appea and become the same levels.
7) When the normal black and white picture does not appears on the screen even if you adjust the contrast volume, repeat the adjustment, with the low right volume and CRT drive volume several times.
8) Set the Service switch (SW602) to OFF.

STATIC CONVERGENCE MODE

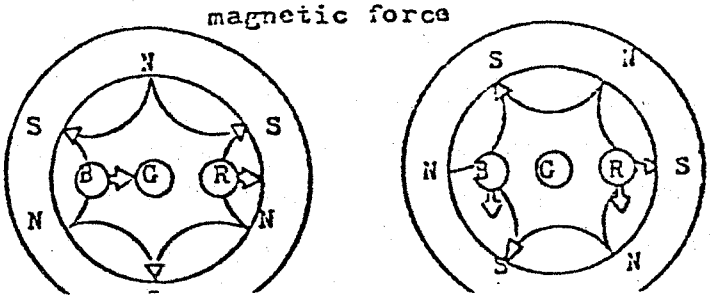


STATIC CONVERGENCE MODE

4-Pole Static Converging Magnet
You can move each side beams to the backward direction equally.



6-Pole Static Converging Magnet
You can move each side beams to the same direction equally.

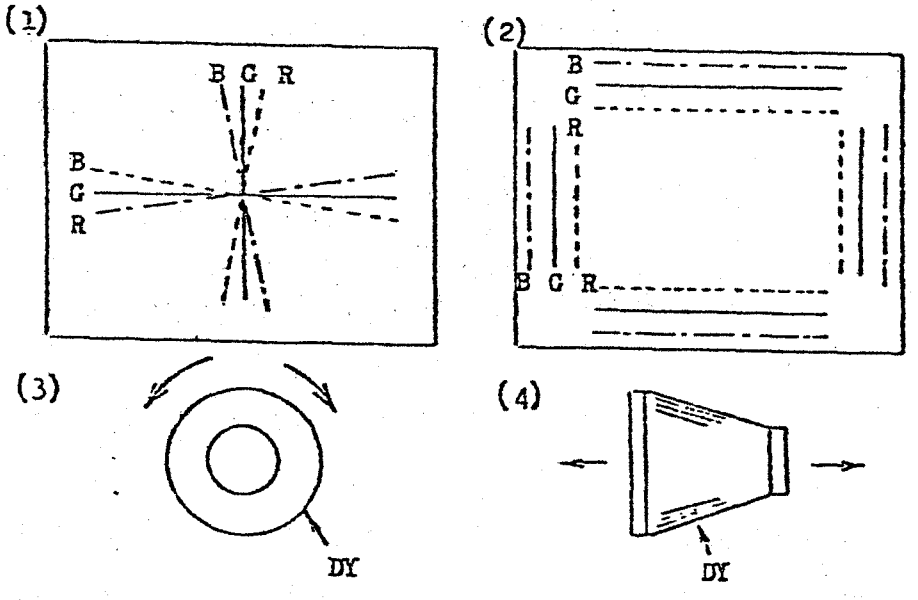


13 PURITY ADJUSTMENT

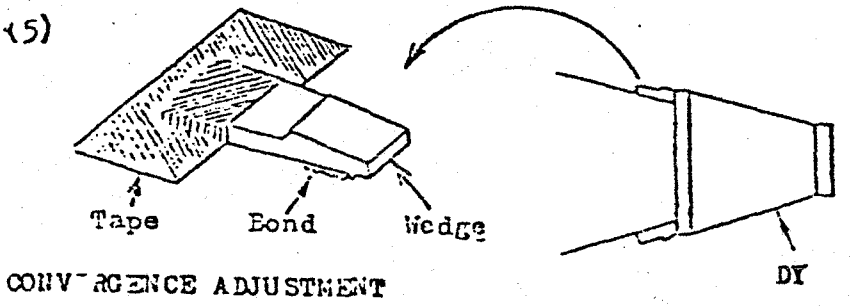
1) Turn the Low Right Volumes (Red/VR614 & Blue/VR616) clockwise and adjust to the raster of the only Green.
2) Loosen screws with DY(Deflection Yoke) and slide back the DY fully.
3) Adjust two sheets of Purity Magnets alternately and adjust them so that the Green Lines may appear on the Center of the Picture Screen vertically.
4) Slide the DY forward While you are watching the screen and adjust the DY so that the Green Lines may equally appear on the screen.
(When the Green Lines do not equally appear on the screen, repeat the operations of the above the items 2 – 4 several times.)
5) Check each single color for Red and Blue.
6) When the colors appear in same positions on the screen at White Raster, slide the DY forward or backward a little.
7) Adjust the DY location and tighten the fixed screws of DY.

14 PERIPHERY CONVERGENCE ADJUSTMENT

1) Fasten DY (Deflection Yoke) fixed-screws.
2) Swing DY to Front, Rear, Left and Right as shown in diagrams (3) and (4). Then adjust the aberration of the diagrams (1) and (2).



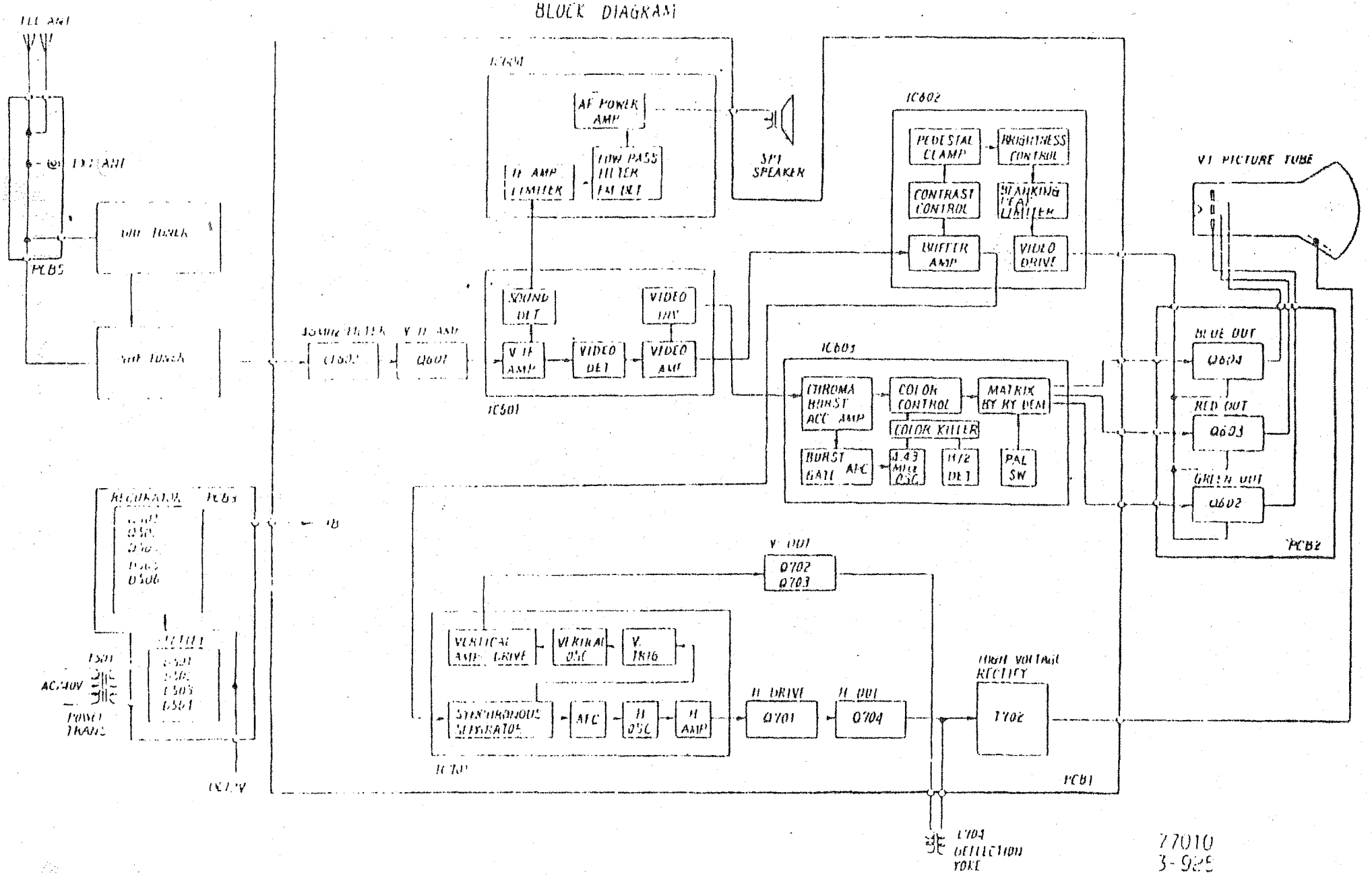
3) Insert the wedge as in the diagram (5).
Tighten the DY fixed-screws firmly.



15 CENTRAL CONVERGENCE ADJUSTMENT

1) Receive the signal of the cross hatch pattern.
2) Adjust R (Red), B (Blue) with 2 sheets of 4-pole magnet.
3) Adjust R (Red) and B (Blue) to Green with 2 sheets of 6-pole magnet

BLOCK DIAGRAM



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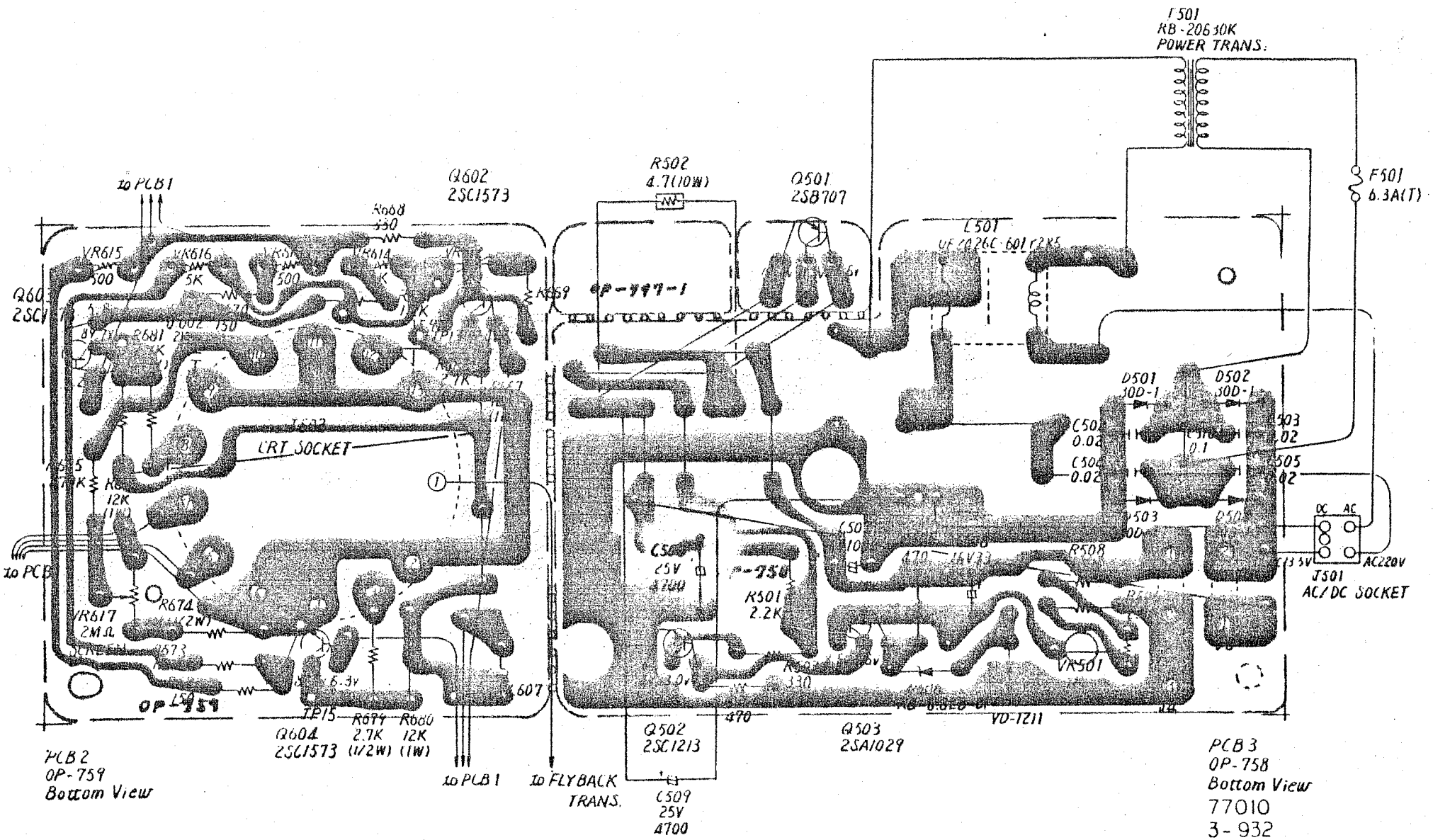
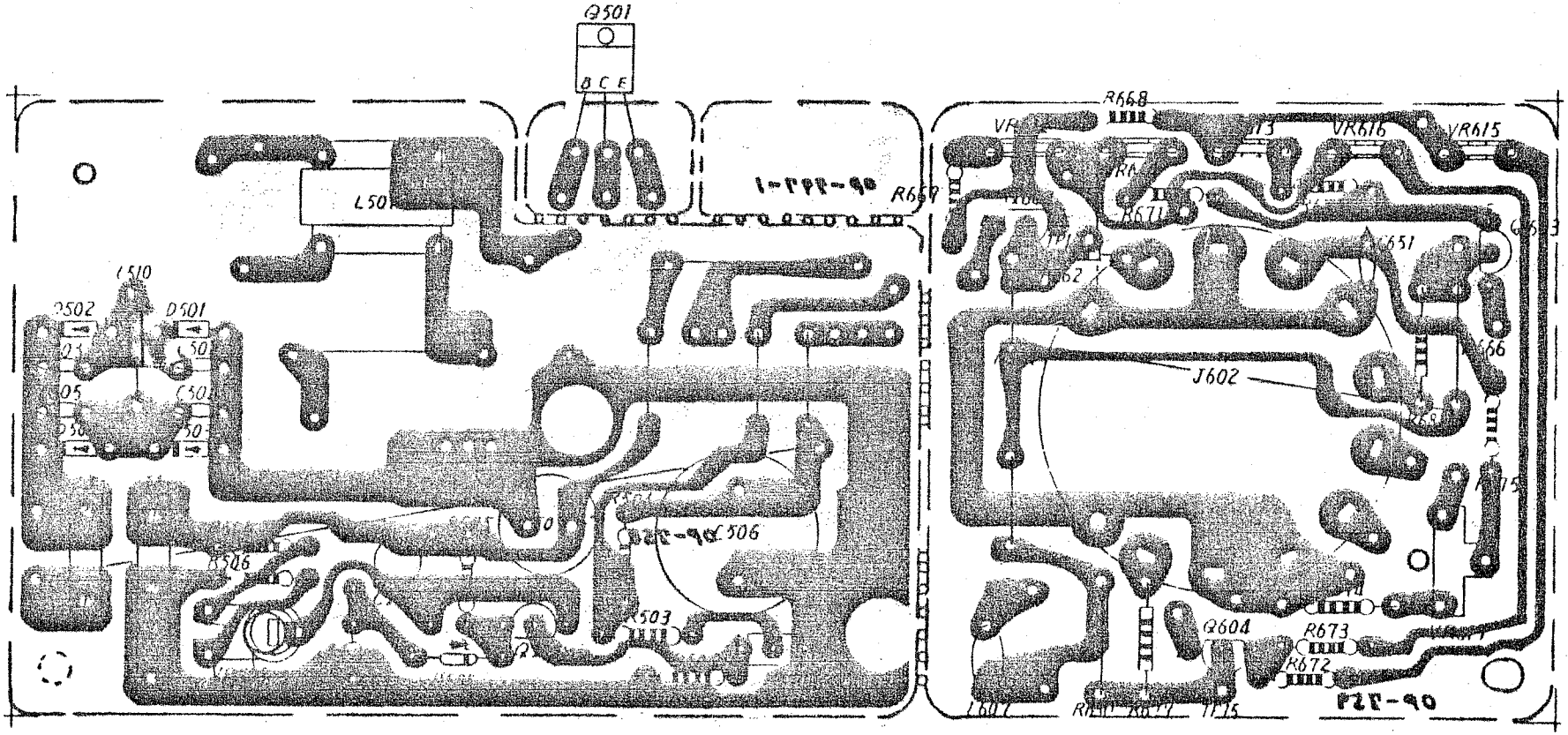

T501
RB-20630K
POWER TRANS.
F501
6.3A(T)
to PCB1
Q602
2SC1573
R502
4.7(10W)
Q501
2SB707
L501
D501
30D-1
D502
30D-1
CRT SOCKET
OP-759
OP-758
R501
2.2K
VR501
R508
VD-1211
Q502
2SC1213
Q503
2SA1029
Q604
2SC1573
to PCB1
to FLYBACK
TRANS.
J501
AC/DC SOCKET
AC220V
PCB2
OP-759
Bottom View
PCB3
OP-758
Bottom View

77010
3-932

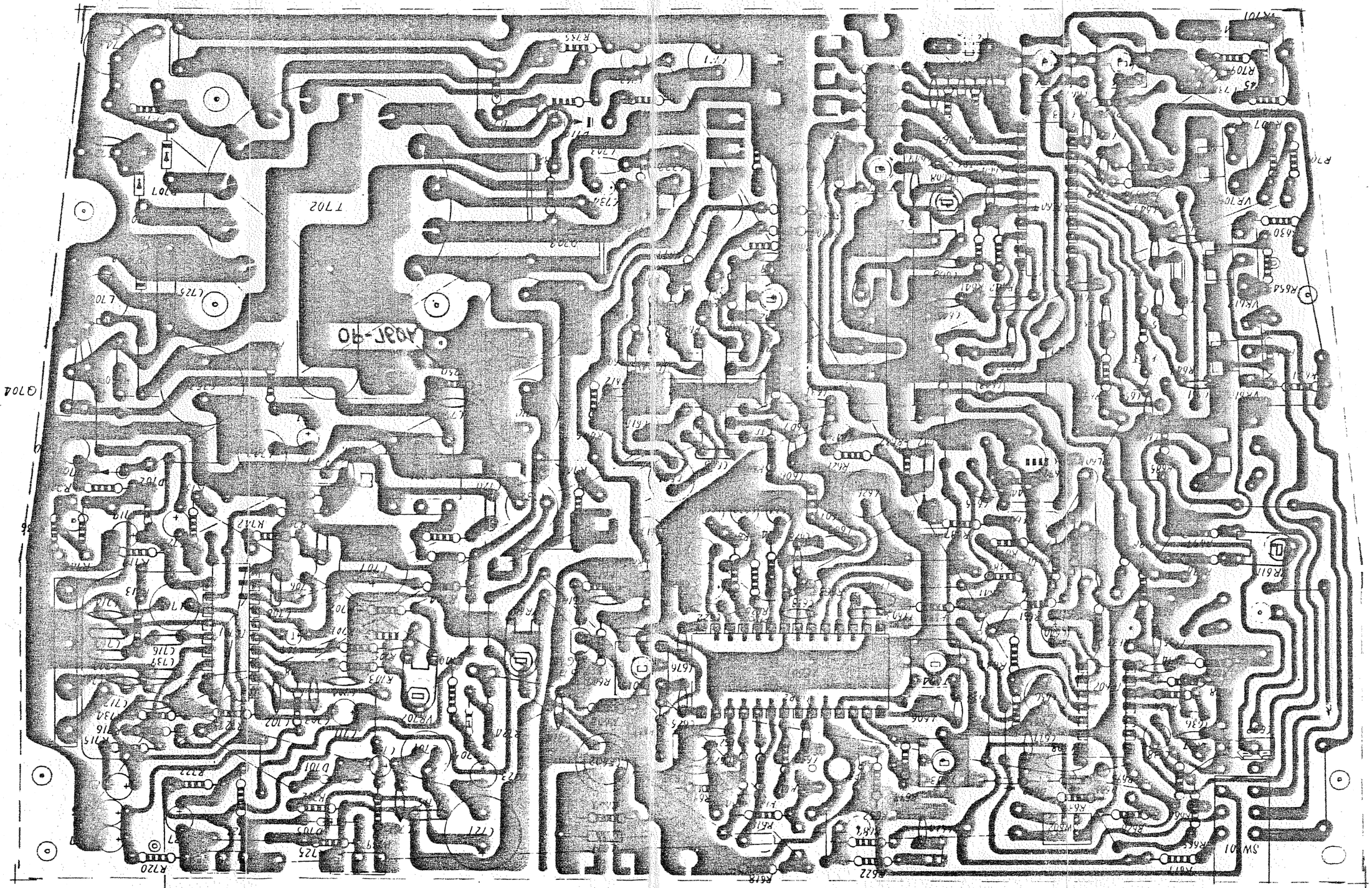


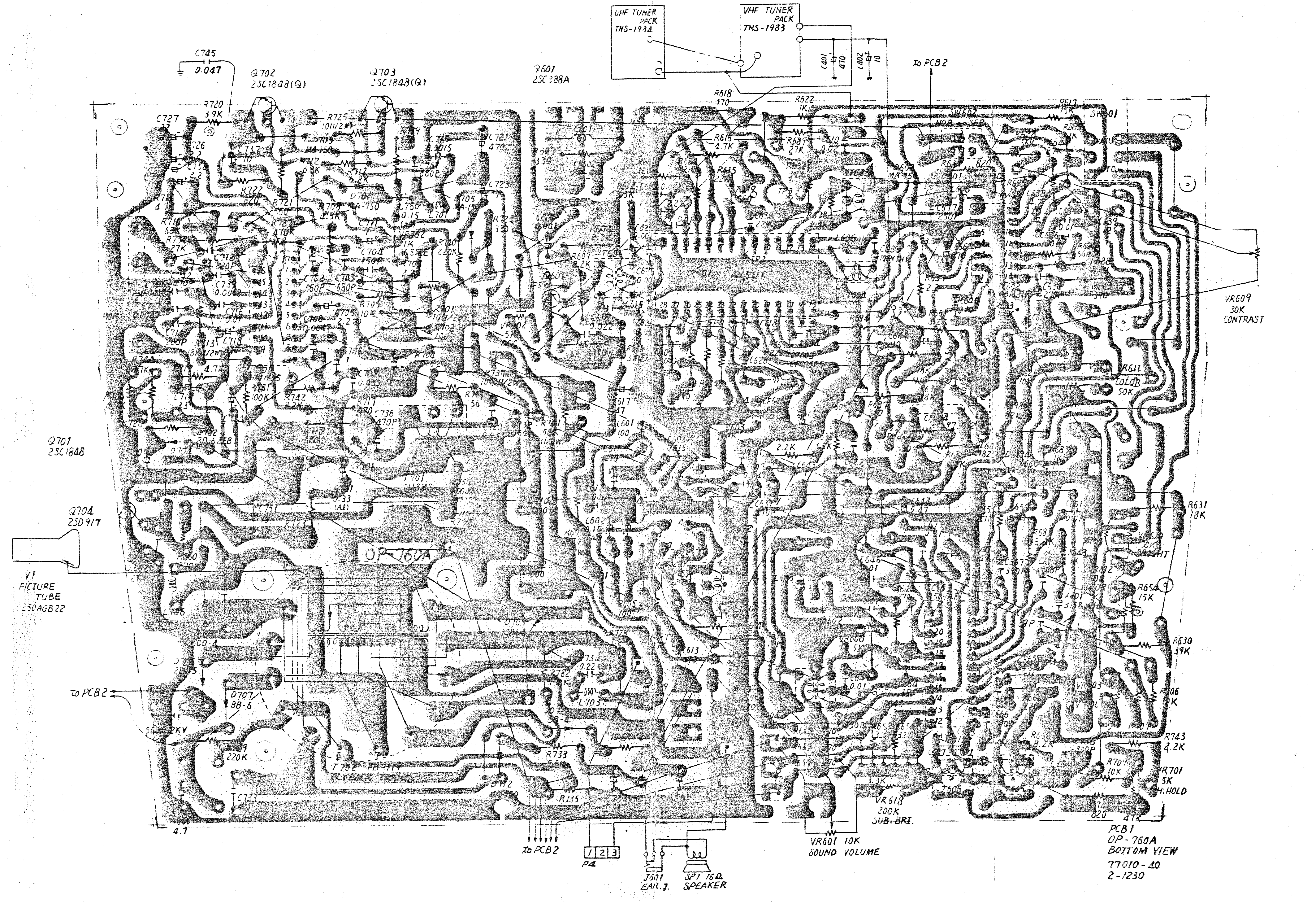
PCB3
OP-758
Top View

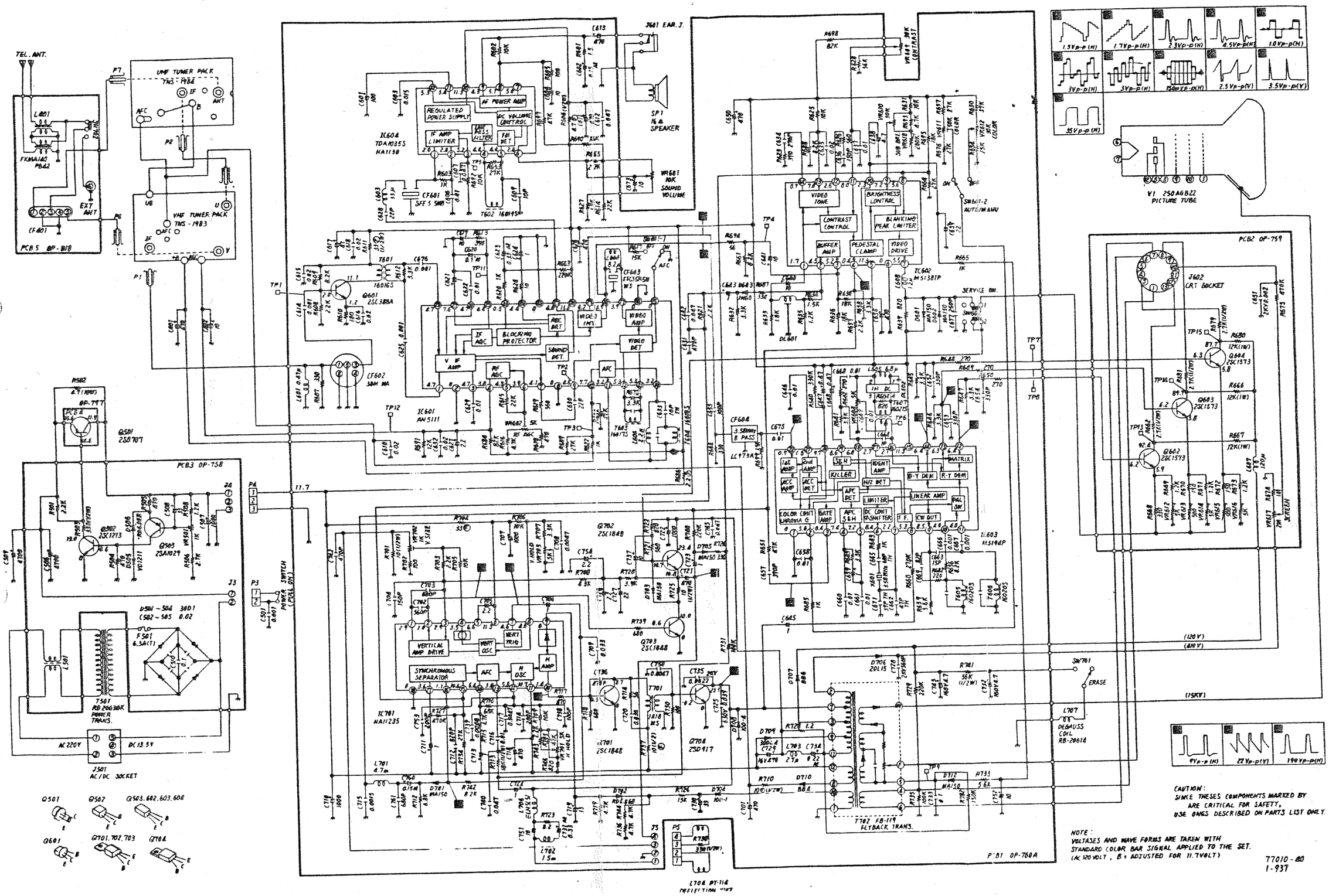
PCB2
OP-759
Top View

77010
3-931

PCB1
OP-760A
10P VIEW
T1010 40
2 1229




UHF TUNER PACK TNS-1984
VHF TUNER PACK TNS-1983
C401 470
C402 10
to PCB2
C745 0.047
Q702 2SC1848(Q)
Q703 2SC1848(Q)
Q601 2SC388A
R720 3.9K
C727 22
R725 10Ω(1/2W)
D703 MA-150
R712 6.8K
D701 MA-150
R722 820
R721 100
R709 4.3K
L760 0.15
C704 150P
VR702 1K V.SIZE
R740 220K
C712 820P
C731 0.0068
C716 0.01
C702 560P
C703 680P
R705 10K
C705 2.2
R701 100(1/2W)
C721 470
R724 330
R618 470
R622 1K
R616 4.7K
R689 27K
C610 0.02
R615 22
R609 2.2K
C616 0.022
IC601 AN5111
C601 100
C617 47
SW602 NOR SER
SW601
R617 75K
R611 COLOR 50K
VR609 30K CONTRAST
Q701 2SC1848
Q704 2SD917T
V1 PICTURE TUBE 250AGB22
C736 470P
C751
R742
R731 100K
T101
OP-760A
L706
D707 BB-6
560 2KV
220K
T702 FB-114 FLYBACK TRANS.
C733
4.7
D712
R733
R735
L703
C734 0.22
R782
C613
R605 100
C648 0.47
R631 18K
R630 39K
R654 15K
R743 2.2K
R709 10K
VR701 5K H.HOLD
VR618 200K SUB. BRI.
T605
3.3K
820
47K
to PCB2
P4
1 2 3
J601 EAR.J.
SP1 16Ω SPEAKER
VR601 10K SOUND VOLUME
PCB1
OP-760A
BOTTOM VIEW
77010-40
2-1230


TEL. ANT.
P7
UHF TUNER PACK
TNS-7986
IF
AMT
AFC
B
P2
L601
FKMA1A0
PB42
EXT ANT
P6
VHF TUNER PACK
TNS-1983
U
V
VB
AFC
IF
PCB 5 OP-818
P1
J501 EAR J.
SP1
16 Ω SPEAKER
IC604
TDA1035S
HA1138
REGULATED POWER SUPPLY
AF POWER AMP
DC VOLUME CONTROL
IF AMP LIMITER
FM DET.
VR681
10K
SOUND VOLUME
CF681
SFE 5.5MB
T602 160N95
T601
160N65
Q601
2SC3838A
CF602
38M MA
IC601
AN5111
VIDEO DET
VIDEO AMP
SOUND DET.
IF AGC
BLOCKING PROTECTOR
V IF AMP
AFC
AGC
CF603
EFCS5R5GW3
SW501-1
SW501-2
AUTO/MANU
VR687
30K
CONTRAST
VR688
30K
COLOR
VR689
10K
SUB BRT
VR690
10K
BRT
VR691
27K
TINT
VR692
30K
COLOR
VIDEO TONE
BRIGHTNESS CONTROL
CONTRAST CONTROL
BLANKING PEAK LIMITER
BUFFER AMP
PEDESTAL CLAMP
VIDEO DRIVE
IC602
M51381P
SERVICE SW.
V1 250AGB22
PICTURE TUBE
PCB2 OP-759
J602
CRT SOCKET
Q604
2SC1573
Q603
2SC1573
Q602
2SC1573
Q502
2SB707
PCB4
OP-797
PCB3 OP-758
Q501
2SC1213
Q503
2SA1029
J3
P4
P3
POWER SWITCH
D501~504 30D1
C502~505 0.02
F501
6.3A(T)
T501
RB-20630K
POWER TRANS.
AC 220V
DC 13.5V
J501
AC/DC SOCKET
Q501
Q502
Q503, 602, 603, 604
Q601
Q701, 702, 703
Q704
IC701
MAI1235
Q702
2SC1848
Q703
2SC1848
Q708
2SD917
VERTICAL AMP DRIVE
VERT. OSC
VERT. TRIG
SYNCHRONOUS SEPARATOR
AFC
N OSC
H AMP
T701
T702 FB-119
FLYBACK TRANS.
IC603
M5190P
Y/C DEL
SEPARATOR
COLOR CHROMA Q
BURST GATE
APC 5&H
DC CONTI SHIFTER
F.F.
CW OUT
1H DL
ACC AMP
ACC DET
APC DET
1HZ DET
KILLER
IDENT AMP
LIMITER
LINEAR AMP
PAL SW
B-Y DEM
R-Y DEM
MATRIX
T603
FBT
D706
20L15
SW701
ERASE
DEGAUSS COIL
RB-20618
L707
L702
15mH
DEFLECTION YOKE
P501
P502
P503
P504
P505
P506
P507
P508
P509
P510
P511
P512
P513
P514
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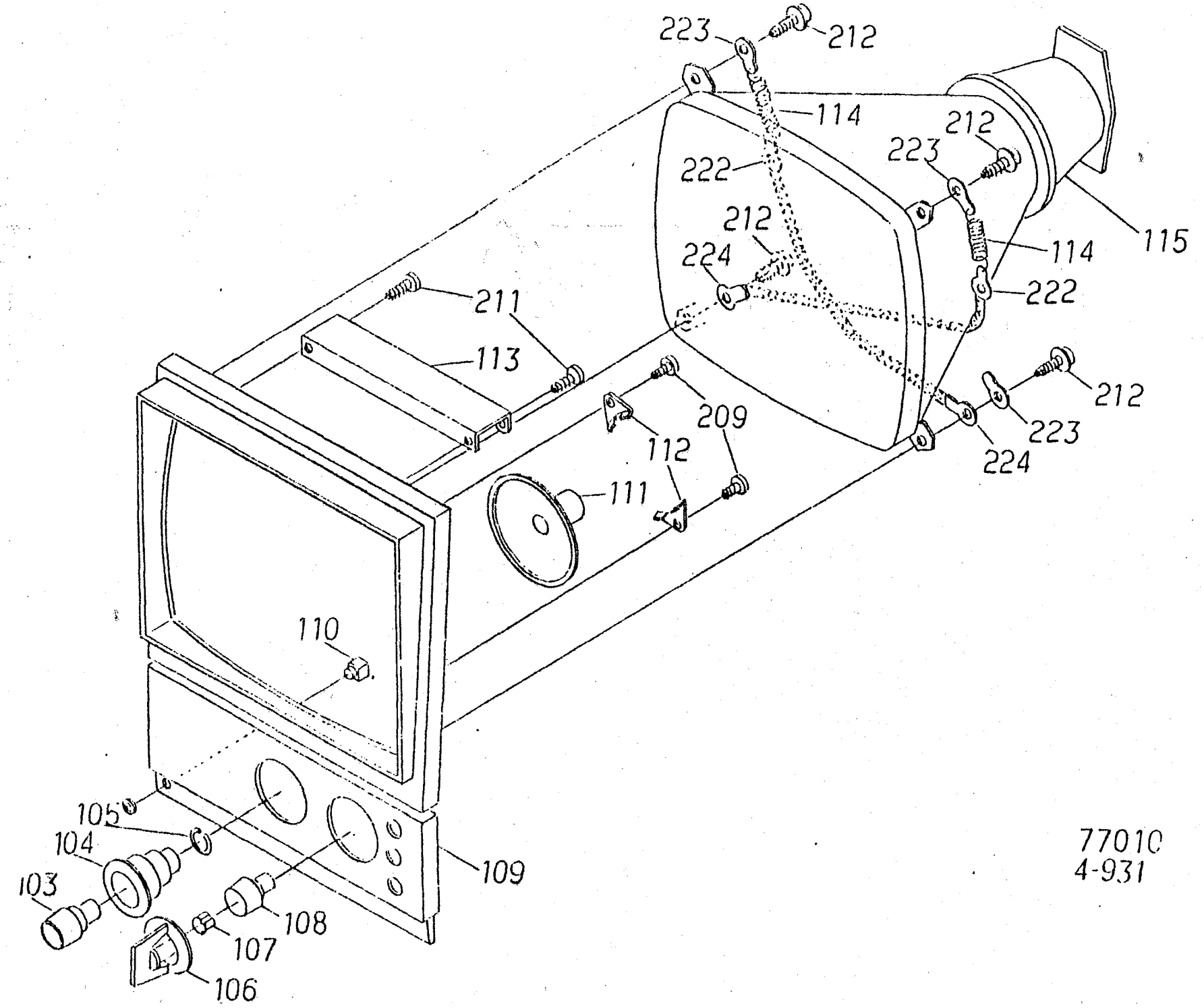
P540

SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY
103	7300-1908	Knob, UHF, Vernier	1
104	7300-1938	Knob, UHF, Dial Scal	1
	7200-4759	Designation Plate, Knob, UHF	1
105	7800-5090	Spring, Knob, UHF	1
106	7300-1910	Knob, VHF	1
	7200-4645	Designation Plate, Knob, VHF	1
107	-	Spring, Knob, VHF/Volume/Contrast	3
108	7300-1913	Knob, VHF, Vernier	1
109	7000-1806	Cabinet, Front	1
	7200-3862	Designation Plate, Color	1
110	0802-0001	Earphone Jack See Electric Part J601	1
111	1101-0081	Speaker See Electric Part SP1	1
112	7500-0222	Metal, Speaker Mounting	2
113	7800-4790	Mounting Angle, Cabinet, Front & Back	1
114	7800-4671	Spring, Picture Tube	2
115	1600-0040	Picture Tube	1
	7800-4898	Support Sheet, Picture Tube	4
	7200-5106	Decoration Film	1
	7800-4776	Wedge, Deflection Yoke	3
116	7800-4806	Mounting Angle, Flyback Transformer	1
117	7800-4805	Mounting Angle, P.C.Board, Left	1
118	7000-1716	Speacer, Chassis, Front & Left	1
119	7800-4839	Chassis, Front	1
120	-	Mica Plate	3
121	7300-1906	Knob, Volume/Contrast	2
122	7300-1897	Knob, Auto	1
123	7800-4969	Shaft, Flyback Transformer	1
124	7300-1761	Mounting Angle, P.C.Board, Back	1
125	7800-4804	Mounting Angle, P.C.Board, Right	1
126	0201-0588	Contrast Volume See Electric Part VR609	1
127	0202-0700	Volume See Electric Part VR601	1
128	0440-0012	VHF Tuner Pack	1
129	0440-0112	UHF Tuner Pack	1
130	0303-4720	Electrolytic Cap. See Electric Part C509	1
131	7700-0672	Shield Plate, Power Transformer	1
132	7800-3301	Metal, Power Transformer	2
133	0010-0160	Transistor See Electric Part Q501	1
	-	Mica Plate	1
134	7800-4791	Heat Sink, Power	1
	7800-4914	Fiber Washer 20x10x0.25t	1
135	0514-1011	Power Transformer See Electric Part T501	1
	7800-4795	Cushion, Power Transformer	1
136	7700-0656	Mounting Angle, Power Transformer	1
	7200-5106	Fuse Sheet "T"-6.3A	1
137	0820-1000	AC/DC Socket	1
138	0144-4780	Cement Resistor See Electric Part R502	1
140	7300-1547	Knob, Degauss Switch	1
	7800-4558	Cushion, Knob, Degauss Switch	1
141	0782-1060	Degauss Switch See Electric Part SW701	1
142	-	Locking Nut, Jack Plate, Antenna	2
143	7700-0755	Jack Plate, Antenna	1
145	7300-1899	Holder, Handle	2
146	7300-1940	Handle	2
	7800-4899	Sheet, Vibration Stopping	2

SYMBOL NO.	PART NO.	DESCRIPTION		Q'TY
147	7300-1941	Telescopic Antenna Clamp		1
148	1200-0240	Telescopic Antenna		2
149	7800-5013	Holder, Telescopic Antenna		1
150	7300-1704	Knob, Bright/Color/V.Hold		3
151	7000-1799	Cabinet, Back		1
	7200-5002	Model Number Sheet		1
	7800-4443	Sheet, Vibration Stopping	80x5x0.5t	2
	7200-5263	FTZ Number Sheet		1
153	1011-0631	Fuse	"T" 6.3A	1
154	1204-0010	Fuse Holder		1
201	8101-1314	Screw, Pan Head	3x14	2
202	8103-1306	Screw, Bind Head	3x6	12
203	8103-1308	"	3x8	2
204	8103-1310	"	3x10	1
205	8103-1408	"	4x8	3
206	8132-1308	Screw, Tapping A WH 8φ	3x8	1
207	8111-4310	" Bronze	3x10	2
208	8111-1316	"	3x16	2
209	8112-1308	Screw, Tapping B	3x8	4
210	8112-1412	"	4x12	10
211	8112-1420	"	4x20	4
212	8134-1525	"	5x25	4
213	8109-1306	Screw, Tap-tight	3x6	4
214	8109-1412	"	4x12	2
215	8110-1306	Screw, Plus-tight	3x6	2
216	8114-1308	Screw, Sems B	3x8	1
217	8114-1312	"	3x12	1
218	8114-1408	"	4x8	2
219	8104-1306	Screw, Flat Head	3x6	5
220	8103-1306	Screw, Plastic	3x6	4
221	8104-4J05	Screw, Flat Head	2.6x5	2
222	8147-1300	Lug Terminal	3φ	5
223	8147-1500	Lug Terminal	5φ	3
224	8147-1500	"	D5	2
225	8140-13X5	Plain Washer Special	3x10x0.5t	2
226	8140-1385	"	3x8x0.5t	4
227	8141-13X5	" Fiber	3x10x0.5t	3
228	8135-1300	Nut	3φ	2
229	—	Screw, Telescopic Antenna	3x8	2
230	8136-1300	Spring Washer	3φ	2
231	8103-1406	Screw, Bind Head	4x6	2

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
PCB1 Assy	7800-4803	Heat Sink, Diode			2
	7700-0674	Shield Plate, Video IF			1
	7700-0673	Shield Plate, Video IF			1
PCB3 Assy	0829-0002	Connector		MD-019	5
-	0830-0641	Coaxial Cable	G-141A	560mm	2
-	0830-0642	"	G-142	190mm	1
-	0830-0643	"	G-143	200mm	1
-	0830-0674	"	G-174A	510mm	2
-	0830-0639	Housing	G-139A	450mm	1
-	0830-0640	"	G-140	390mm	1
-	1206-0001	Band, Cord Clamp		No.5167	15
-	7900-1394	Package, Right			1
-	7900-1395	Package, Left			1
-	7950-1560	Instruction Booklet			1
-	7900-1463	Gift Box			1
-	-	Poly Bag			1
-	-	AC Cord			1
-	1323-0150	Car Battery Cord			1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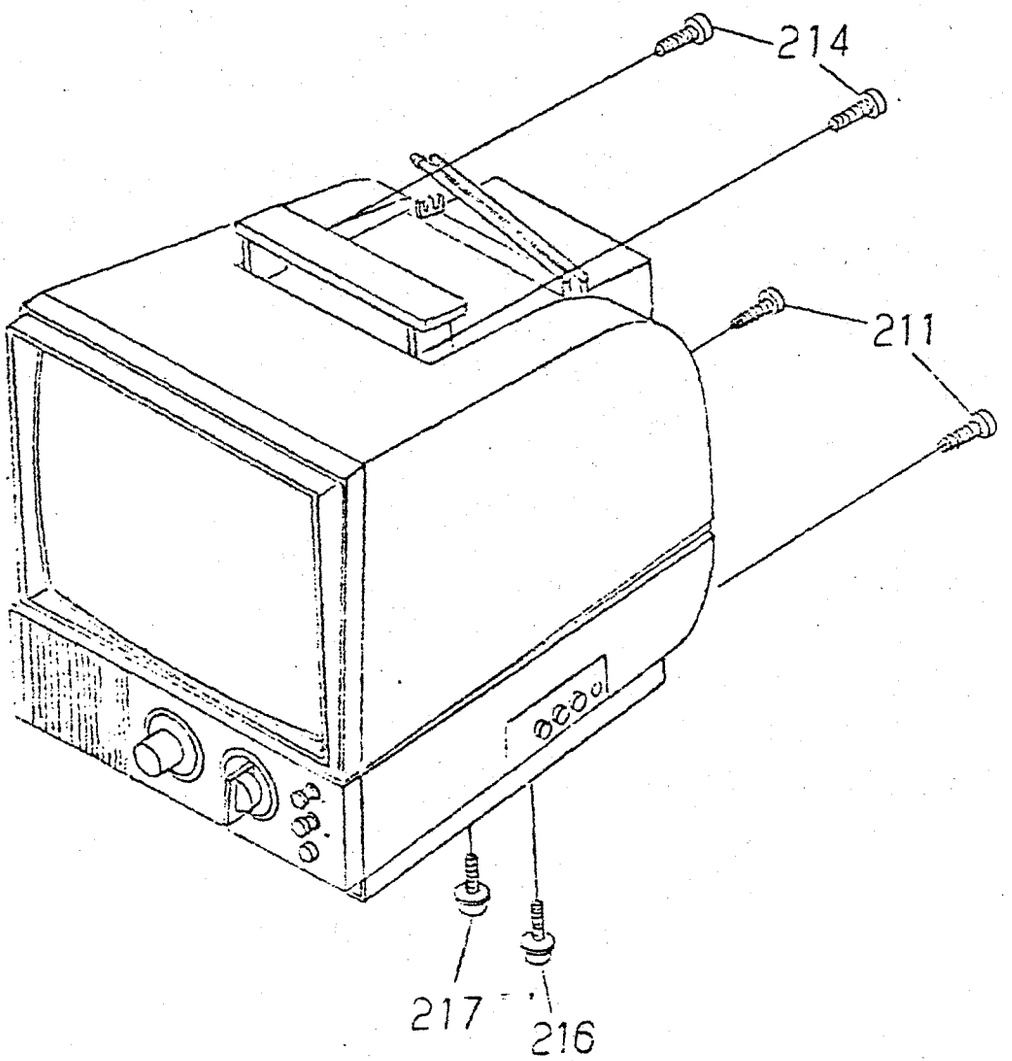

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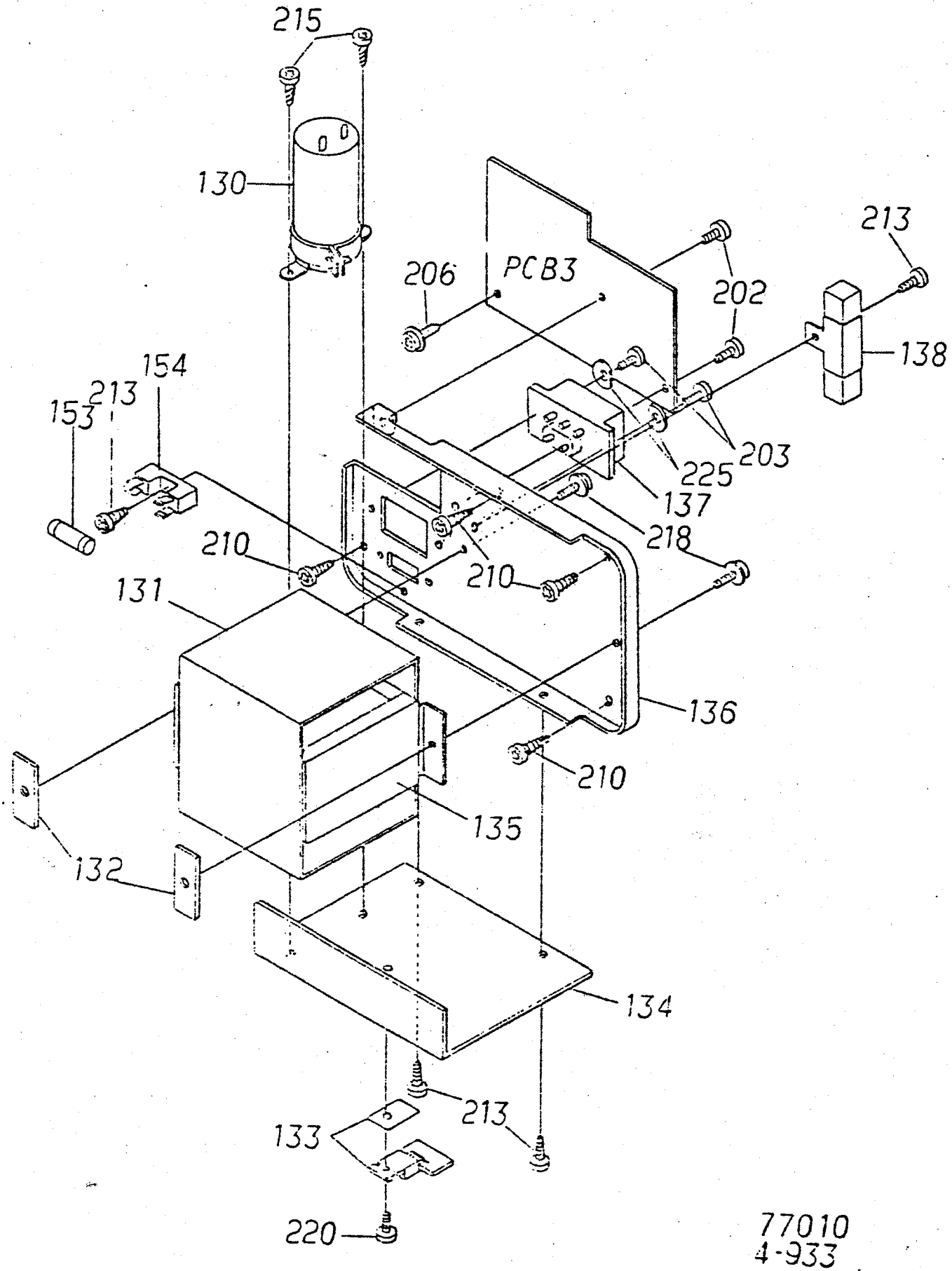
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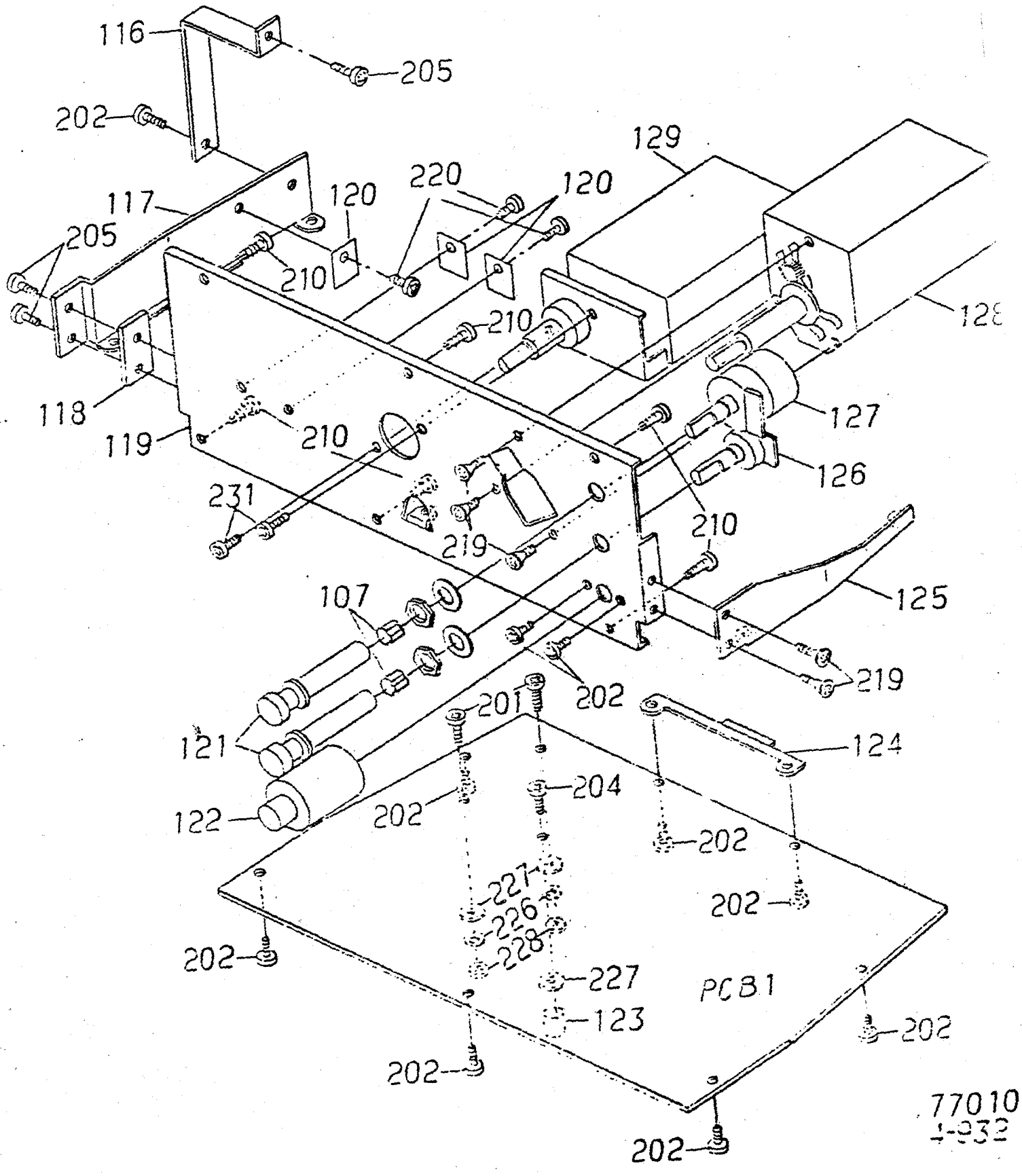
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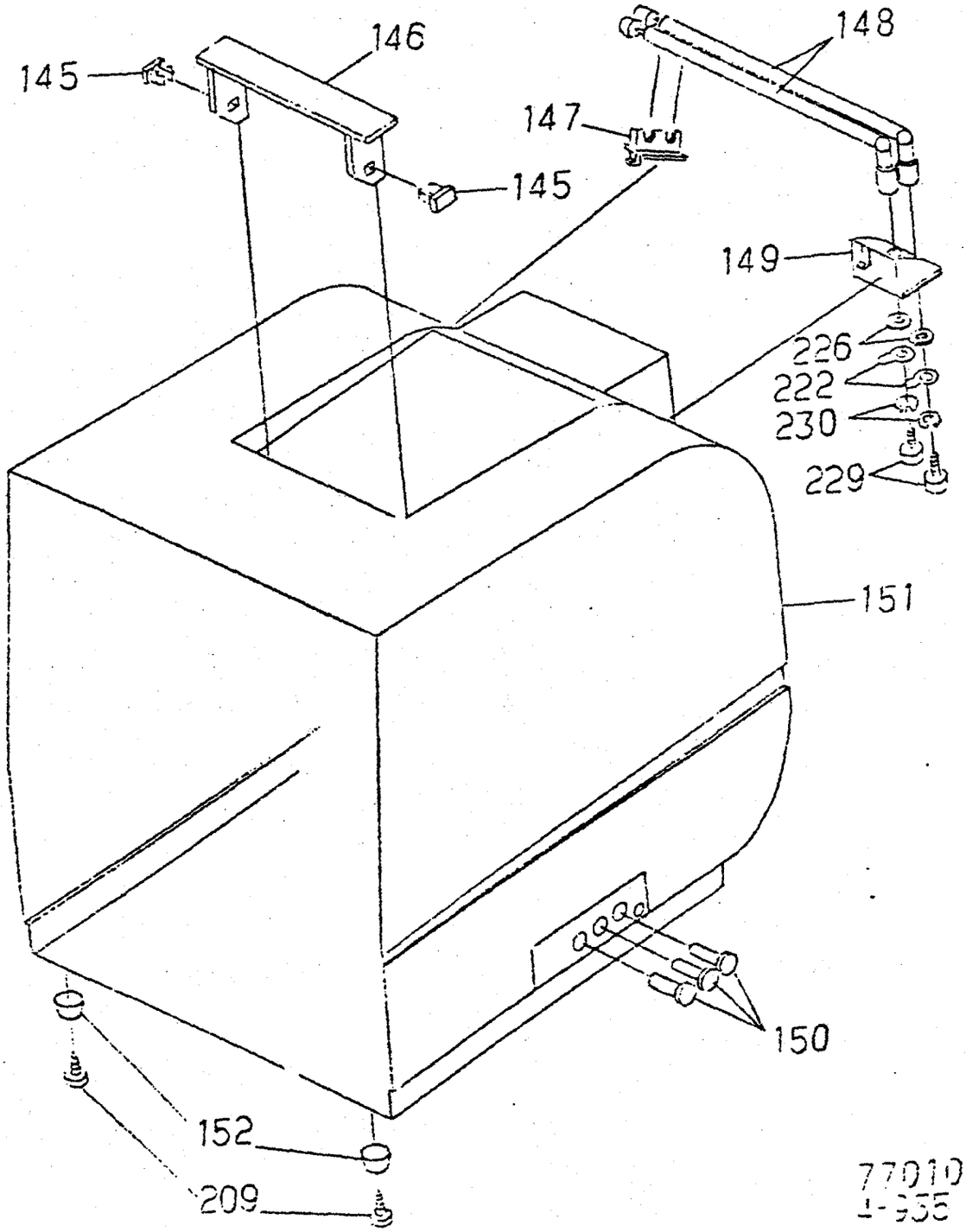
PCB1
123
202
202
77010
4-932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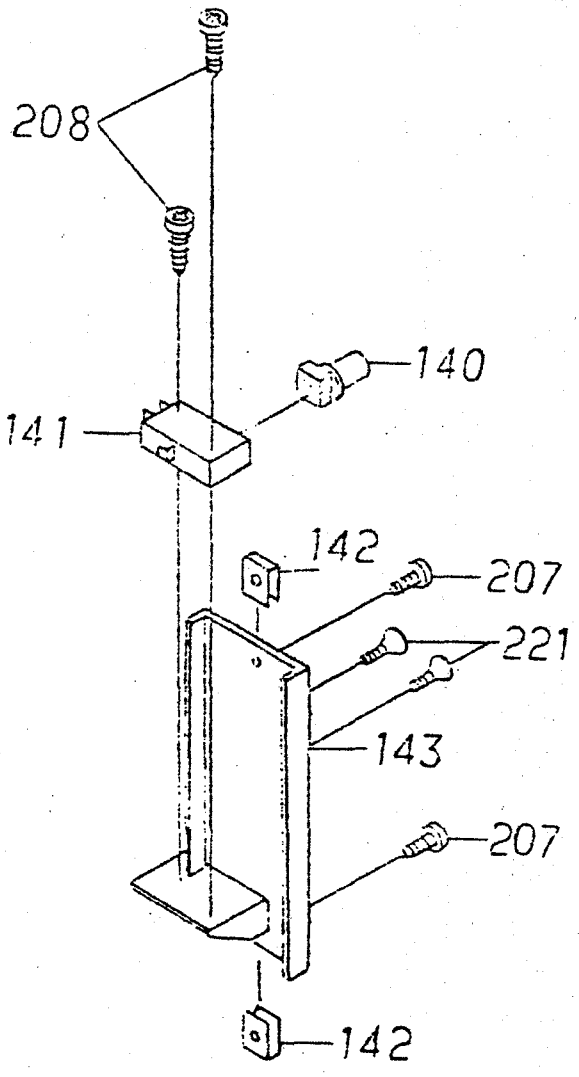
1-935



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PARTS LIST FOR MODEL COLOR 9000

****

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
		- RESISTORS -			
		All Resistors are ¼W, Carbon-type & Horizontal-type, unless otherwise noted.			
R501	0107-2220	2.2K	ohm		1
R502	0144-4780	4.7	"	10W Cement	1
R503	0108-3310	330	"	½W	1
R504,505	0107-4710	470	"		2
R506	0107-2720	2.7K	"		1
R508	0107-1220	1.2K	"		1
R601	0107-1580	1.5	"		1
R602,625,692	0107-1030	10K	"		3
R603,620,622, 643,665,685	0107-1020	1K	"		6
R604,639	0107-8210	820	"		2
R605	0107-1010	100	"		1
R606	0108-4780	4.7	"	½W	1
R607,644,687	0107-3310	330	"		3
R608,621,637	0107-2220	2.2K	"		3
R609,656,661,679	0107-8220	8.2K	"		4
R610	0107-1810	180	"		1
R611	0108-3300	33	"	½W	1
R612,632,645,646, 647,678,683	0107-3320	3.3K	"		7
R613,623	0107-3910	390	"		2
R614,615	0107-2230	22K	"		2
R616,693	0107-4720	4.7K	"		2
R617,654,690	0107-1530	15K	"		3
R618,675	0107-4740	470K	"		2
R619,626	0107-5610	560	"		2
R624	0107-1000	10	"		1
R627,641	0107-3920	3.9K	"		2
R628	0107-5630	56K	"		1
R630,652	0107-3930	39K	"		2
R631,636,638	0107-1830	18K	"		3
R633	0107-1820	1.8K	"		1
R634,699	0107-1520	1.5K	"		2
R635,669,671,673	0107-1220	1.2K	"		4
R640	0107-3340	330K	"		1
R642,648,649,650	0107-2710	270	"		4
R651,697	0107-4730	47K	"		2
R653,689	0107-2730	27K	"		2
R655	0102-222C	2.2K	"	Vertical	1
R657,664,676	0107-2730	27K	"		3
R658	0102-3320	3.3K	"	Vertical	1
R659	0107-5620	5.6K	"		1
R660	0102-2740	270K	"	Vertical	1
R662,679,681	0108-2720	2.7K	"	½W	3
R663	0107-2240	220K	"		1
R666,667,680	0120-1230	12K	"	1W	3
R668	0107-3310	330	"		1
R670,672	0107-1510	150	"		2
R674	0108-1050	1M	"	½W	1
R682	0107-2210	220	"		1

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
R684,698	0107-8230	82K	ohm		2
R686	0120-2280	2.2	"	Fuse	1
R691	0107-1230	12K	"		1
R694	0107-5600	56	"		1
R695	0102-1830	18K	"	Vertical	1
R701,710,725,737	0108-1000	10	"	½W	4
R702,750	0107-1010	100	"		2
R703,743	0107-2220	2.2K	"		2
R704	0108-3300	33	"	½W	1
R705,706,709	0107-1030	10K	"		3
R707	0107-3320	3.3K	"		1
R708	0107-4320	4.3K	"		1
R712	0107-6820	6.8K	"		1
R713	0108-1830	18K	"	½W	1
R714	0107-5600	56	"		1
R715,719,736,744	0107-4720	4.7K	"		4
R716	0107-6830	68K	"		1
R717	0107-4710	470	"		1
R718,739	0107-6810	680	"		2
R720	0107-3920	3.9K	"		1
R721	0107-5610	560	"		1
R722,746	0107-8210	820	"		2
R723	0107-8280	8.2	"		1
R724	0107-3310	330	"		1
R726	0107-1530	15K	"		1
R727	0107-4740	470K	"		1
R728	0107-1280	1.2	"		1
R729,740	0107-2240	220K	"		2
R731,735	0107-1040	100K	"		2
R733	0107-5620	5.6K	"		1
R734	0107-2730	27K	"		1
R738	0108-3310	330	"	½W	1
R741	0108-5630	56K	"	"	1
R742	0107-8220	8.2K	"		1
R745	0107-4730	47K	"		1
R782	0107-1540	150K	"		1
		- CAPACITORS -			
C401	0302-4710	Electrolytic	16V	470µF	1
C402	0302-1000	"	16V	10µF	1
C501	0330-1020	Ceramic	0.001µF		1
C502,503,504,505	0330-2230	"	0.022µF		4
C506	0303-4720	Electrolytic	25V	4700µF	1
C507	0302-1020	"	16V	1000µF	1
C508	0302-3300	"	16V	33µF	1
C509	0303-4720	"	25V	4700µF	1
C510	0320-1080	Mylar	0.1µF		1

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
C601	0302-1010	Electrolytic	16V	100μF	1
C604,619,640, 641,673	0302-1000	"	16V	10μF	5
C611,613,626, 650,656	0302-4710	"	16V	470μF	5
C617	0302-4700	"	16V	47μF	1
C621,624,643, 645,659	0305-1090	"	50V	1μF	5
C627	0305-2R20	"	50V	2.2μF	1
C638	0305-4R70	"	50V	4.7μF	1
C639	0302-2200	"	16V	22μF	1
C647,648	0305-R470	"	50V	0.47μF	2
C602	0341-1580	Alumi Solid	25V	0.15μF	1
C620	0342-1080	"	16V	0.1μF	1
C623	0342-3380	"	16V	0.33μF	1
C603	0320-1570	Mylar	0.015μF		1
C642	0320-4770	"	0.047μF		1
C606,622,629,637, 646,649,658,660, 661,668,675	0330-1030	Ceramic	0.01μF		11
C607,612,642	0330-4730	"	0.047μF		3
C609	0330-1000	"	10pF		1
C610,615,616, 618,632,635	0330-2230	"	0.022μF		6
C614,625,666, 667,676	0330-1020	"	0.001μF		5
C628,630	0330-2200	"	22pF		2
C631	0330-4710	"	470pF		1
C633	9334-1002	"	10pF	(N470)	1
C634	0330-2710	"	270pF		1
C636	0330-1510	"	150pF		1
C651	0334-2220	"	0.0022μF	2KV	1
C655	0330-1010	"	100pF		1
C657	0330-3910	"	390pF		1
C662	0334-4702	"	47pF	(N470)	1
C663	0330-1500	"	15pF		1
C664	0330-1090	"	1pF		1
C665	0330-6800	"	68pF		1
C669	0330-8200	"	82pF		1
C671	0334-3902	"	39pF	(N470)	1
C677	0330-2510	"	250pF		1
C701,718,729	0302-4710	Electrolytic	16V	470μF	3
C706,711,713, 723,724	0305-1090	"	50V	1μF	5
C707,710	0302-1020	"	16V	1000μF	2
C719,730	0302-3300	"	16V	33μF	2
C721	0303-4710	"	25V	470μF	1
C722	0304-1020	"	35V	1000μF	1
C726,754	0302-2R20	"	16V	2.2μF	2

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
C727	0302-2206	Electrolytic	16V	2.2μF ±20%	1
C732,743	0308-4R70	"	160V	4.7μF	2
C737,752	0302-1000	"	16V	10μF	2
C751	0303-1006	"	25V	10μF	1
C702	0330-5610	Ceramic	560pF		1
C703,761	0330-6810	"	680pF		2
C704	0330-1510	"	150pF		1
C712	0330-8210	"	820pF		1
C714,753	0330-2010	"	200pF		2
C728	0334-5610	"	560pF	2KV	1
C735	0334-2220	"	0.002μF	2KV	1
C736,742	0330-4710	"	470pF		2
C738	0330-3010	"	300pF		1
C745	0330-4730	"	0.047μF		1
C750	0330-4720	"	0.0047μF		1
C705	0362-2251	Tantalum Con.	16V	2.2μF	1
C708,717	0320-4760	Mylar	0.0047μF		2
C709,720	0320-3370	"	0.033μF		2
C715	0320-1560	"	0.0015μF		1
C716	0320-1070	"	0.01μF		1
C733	0320-1080	"	0.1μF		1
C739	0320-6860	"	0.0068μF		1
C740	0320-4770	"	0.047μF		1
C725	0381-3971	Polypropylen	630V	0.039μF (J)	1
C731	0342-3380	Alumi Solid	16V	0.33μF	1
C734	0342-2280	"	16V	0.22μF	1
C760	0342-1580	"	16V	0.15μF	1
		- SEMICONDUCTORS -			
Q501	0010-0160	Transistor	2SB707	(K,L)	1
Q502	0020-0250	"	2SC1213	(C)	1
Q503	0000-0300	"	2SA1029	(C)	1
Q601	0020-0630	"	2SC388	(A)	1
Q602,603,604	0020-0711	"	2SC1573	(Q)	3
Q701	0020-0722	"	2SC1848	(R)	1
Q702,703	0020-0721	"	2SC1848	(Q)	2
Q704	0030-0150	"	2SD917		1
D501,502,503,504	0051-0040	Diode	30D-1		4
D505	0081-0090	"	VD-1211		1
D506	0054-0050	Zener Diode	RD-6.8EB		1
D601,602	0050-0170	Diode	MA-150		2
D603	0050-0011	"	1N60		1
D701,703,705,712	0050-0170	"	MA-150		4
D702	0054-0050	Zener Diode	RD-6.8EB		1
D704	0051-0010	Diode	10D-1		1
D706	0051-0170	"	2DL15		1
D707	0051-0110	"	BB-6		1
D708	0051-0160	"	10D-4		1
D709	0051-0180	"	30DL4		1
D710	0051-0130	"	BB-4		1

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
IC601	0073-0050	I.C.	AN5111		1
IC602	0079-0230	"	M51381P		1
IC603	0079-0250	"	M5194P		1
IC604	0079-0260	"	TDA1035S		1
IC701	0079-0030	"	HA11235		1
		- COILS & TRANSFORMERS -			
L401	0640-0010	Balun Transformer	FKMA140PB42		1
L501	0631-0270	Choke Coil	UF2426C-601Y2R5		1
L601	0632-0021	Fixed Coil	SP0408-R47M	0.47uH	1
L603	0632-0091	"	EL0810SKI-330K	33 uH	1
L604	0632-0071	"	EL0810SKI-8R2K	8.2 uH	1
L605	0632-0321	"	EL0810SKI-6R8	6.8 uH	1
L606	0632-0031	"	EL0810SKI-2R2K	2.2 uH	1
L607	0632-0190	"	EL0810SKI-121K	120 uH	1
L608	0632-0371	"	EL0810SKI-1R2K	1.2 uH	1
L701	0632-0291	"	FS1012-472K	4.7 mH	1
L702	0632-0311	"	FS1012-152K	1.5 mH	1
L703	0632-0301	"	EL0810SKI-2R7K	2.7 uH	1
L704,705	0650-0140	Deflection Yoke	DY-114		2
L706	0639-0044	Linearity Coil	ELH5L51		1
L707	0639-0033	Degauss Coil	RB-20614		1
T501	0514-1011	Power Transformer	RB-20630		1
T601	0602-2162	IFT	16016S		1
T602	0602-2192	"	16019S		1
T603	0602-2172	"	16017S		1
T604	0602-2182	"	16018S		1
T605,606	0602-2202	Chroma Coil	16020SU		2
T607	0602-2212	"	16021SU		1
T701	0552-0040	Drive Trans.	1418MS		1
T702	0556-0190	Flyback Trans.	FB-119		1
		- SWITCHES & JACKS -			
SW601	0701-0090	Push Switch	SUE13AC7		1
SW602	0711-0030	Slide Switch	SSS-022		1
SW701	0782-1060	Degauss Switch	V-1A		1
SW702	0711-0010	Slide Switch	SSB-02230		.1
J 3,4	0829-0002	Connector	MD-019		5
J 5	0829-0002	"	MD-019		4
J501	0820-1000	AC Socket	305V		1
J601	0802-0001	EAR Jack	HSJ0296-01-150		1
J602	0840-0007	Picture Tube Socket	HPS0079-01-060		1
		- MISCELLANEOUS -			
PCB 1	1511-7603	P.C.Board	OP-760AP		1
PCB 2	1511-7590	"	OP-759		1
PCB 3	1511-7580	"	OP-758		1
PCB 4	1511-7970	"	OP-797		1
PCB 5	1511-8180	"	OP-818		1

SYMBOL NO.	PART NO.	DESCRIPTION			Q'TY
VR501	0223-1026	Semi-Fixed	EVN-K4AA00B13	1K	1
VR601	0202-0700	V.R.	EVV-F6NF25B14	10K	1
VR602	0223-5026	Semi-Fixed	EVN-K4AA00B53	5K	1
VR608	0223-5026	"	EVN-K4AA00B53	5K	1
VR609	0201-0588	V.R.	EVH-G0AF25B34	30K	1
VR610,612	0201-0586	"	EVH-0TAF15B34	30K	2
VR611	0223-5036	Semi-Fixed	EVN-K4AA00B54		1
VR613,615	0221-5010	"	EVL-T0AA00B52	500	2
VR614,616	0221-5020	"	EVL-T0AA00B53	5K	2
VR617	0201-1300	V.R.	EVH-J6UK10B26	2M	1
VR618	0221-2040	Semi-Fixed	EVL-T0AA00B25	200K	1
VR701	0224-5022	"	EVL-V0AA00B53	5K	1
VR702	0223-1026	"	EVN-K4AA00B13	1K	1
VR703	0201-0587	V.R.	EVH-0TAF15B53	5K	1
CF401	0399-0010	Distributor	EXC-UVS01		1
CF601	0390-0013	Ceramic Filter	SFE5.5MB		1
CF602	0390-0012	SAW Filter	38M-MA		1
CF603	0390-0027	Ceramic Filter	EFCS5R5MW3		1
CF604	0390-0030	Band Pass Filter	LC-973A-2		1
DL601	0642-0050	Delay Coil	DL182501D-B4		1
DL602	0642-0040	"	EFDEN645A11G		1
F501	1011-0631	Fuse	6.3 A "T"		1
X601	6600-0080	Cristal	EYXDE445S11D		1
SP 1	1101-0081	Speaker	EAS-8P79GA		1
V 1	1600-0040	Picture Tube	250AGB22		1
P 1	0830-0643	Coaxial Cable	G-143		1
P 2	0830-0642	"	G-142		1
P 3	0830-0639	Howsing	G-139-A		1
P 4	0830-0640	"	G-140-A		1
P 6,7	0830-0641	Coaxial Cable	G-141-A		2
-	1200-0240	Telescopic Antenna	T-2109		1
-	0440-0012	VHF Tuner	TNS-1983		1
-	0440-0112	UHF Tuner	TNS-1984		1
-	0830-0674	Connector	G-174-A		1
-	1204-0010	Fuse Holder	NPF-073		1
-	0835-0010	Connector	D2-711N-00		1
-	7800-4776	Wedge			3
-	1609-0010	Purity Magnet	CM-001		1
-	1203-0050	Test Pin	64H		1
-	1203-0021	Pin Terminal	ST-0015		5
-	1203-0010	"	A-4646		2
-	-	AC Cord			1